ORDER NO. SD7607-1101

Service Manual

FM/AM STEREO RECEIVER

SA-5460

(X), (XG), (XGH),
(XSD), (XSW), (XE)

TECHNICAL SPECIFICATIONS (IHF)

Specifications are subject to change without notice for further improvement.

AMPLIFIER SECTION

1kHz continuous power:	both channels driven	78W + 78W (4Ω) 68W + 68W (8Ω)
20Hz ~ 20kHz continuous power:	both channels driven	72W + 72W (4Ω) 65W + 65W (8Ω)
Power bandwidth:	both channles driven at 8Ω	10Hz ~ 40kHz, −3dB
Total harmonic distortion:		0.1% at rated power (20Hz ~ 20kHz) 0.05% at half power (1kHz)
Intermodulation distortion:		0.5%
Damping factor.		55 (8Ω), 27.5 (4Ω)
Input sensitivity and impedance:	PHONO	2.5mV/47kΩ
	AUX, TAPE 2 PLAYBACK	150mV/35kΩ
	TAPE 1 PLAYBACK, REC/PLAY input	180mV/40kΩ
PHONO maximum input voltage:	(1kHz, RMS)	150mV
S/N (IHF, A):	PHONO	78 dB
	AUX	95dB
Frequency response:	PHONO	RIAA Standard curve ±0.2dB
	AUX	20Hz ~ 20kHz, ±0.5dB
Tone controls:	BASS	50Hz, +13dB ~ −13dB
	TREBLE	10kHz +12dB ~ −12dB
Loudness control (volume at −30dB):		50Hz, +9dB
Output voltage:	TAPE 1 REC OUT	180mV
	TAPE 2 REC OUT	150mV
	TAPE 1 REC/PLAY output	30mV
High fillter:		7kHz −6dB/oct.
Low filter:		100Hz, −6dB/oct.

FM TUNER SECTION

Frequency range:	88 ~ 108MHz
Antenna terminals:	300Ω (balanced) 75Ω (unbalanced)
Sensitivity:	1.8μV
Total harmonic distortion.	MONO 0.15% STEREO 0.25%
S/N:	MONO 75dB STEREO 72dB
Frequency response:	20Hz ~ 15kHz, +0.2dB −0.8dB
Alternate channel selectivity:	70dB
Capture ratio:	1.5dB
Image rejection at 98MHz:	53dB
IF rejection at 98MHz:	80dB
AM suppression:	55dB
Stereo separation:	1kHz 45dB 10kHz 35dB
Leak carrier:	−65dB (19kHz) −75dB (38kHz)

AM TUNER SECTION

Frequency range:	525 ~ 1605kHz
Sensitivity:	30μV, 260μV/m
Selectivity:	22dB
Image rejection at 1000kHz:	47dB
IF rejection at 1000kHz:	40dB

GENERAL

Power consumption:	500W
Power supply:	110V/120V/220V/240V 220V/240V (Set for England (XE))
Dimensions (W x H x D)	500 x 150 x 420mm (19-11/16″ x 5-29/32 x 16-17/32″)
Weight:	14kg (30.9 b.)

TECHNISCHE DATEN (DIN 45 500)

Spezifikationen können infolge von Verbesserungen ohne Ankündigung geändert werden.

VERSTÄRKERTEIL

RMS-Dauertonleistung bei 1kHz: beide Kanäle zusammen ausgesteuert		2 x 78W (4Ω) 2 x 68W (8Ω)
RMS-Dauertonleistung bei 20Hz ~ 20kHz: beide Kanäle zusammen ausgesteuert		2 x 72W (4Ω) 2 x 65W (8Ω)
Leistungsbandbreite (beide Kanäle zusammen ausgesteuerbei 4Ω):		10Hz ~ 40kHz, −3dB
Harmonische Verzerrungen: Nennleistung bei 40Hz ~ 16,000Hz, 4Ω		0.1%
Intermodulationsverzerrung: Nennleistung bei 250Hz: 8000Hz = 4 : 1 4Ω		0.5%
Dämpfungsfaktor:		55 (8Ω), 27.5 (4Ω)
Eingangsempfindlichkeit & Impedanz:	PHONO	2.5mV/47kΩ
	AUX, TAPE 2 PLAYBACK	150mV/35kΩ
	TAPE 1 PLAYBACK, REC/PLAY Wiedergabe	180mV/40kΩ
PHONO Maximale Eingangsspannungen: (1kHz RMS)		150mV
Fremdspannungsabstand:	Nennleistung PHONO	65dB
	AUX	80dB
	50mW Ausgangsleistung PHONO	50dB
	AUX	50dB
Frequenzgang:		20Hz ~ 20kHz, ±0.5dB
Klangregler:	BÄSSE	50Hz, +13dB ~ −13dB
	HÖHEN	10kHz, +12dB ~ −12dB
Gehörgerechte Lautstärkekorrektur (Lautstärke −30dB):		50Hz, +9dB
Ausgangsspannungen:	TAPE 1 REC OUT	180mV
	TAPE 1 REC/PLAY Aufnahme	30mV
	TAPE 2 REC OUT	150mV
Hochtonfilter:		7kHz, −6dB/oct.
Tieftonfilter:		100Hz, −6dB/oct.

UKW-TUNERTEIL

Empfangsbereich:	88 ~ 108MHz
Antennenanschluss:	300Ω (symmetrisch) 75Ω (asymmetrisch)
Empfindlichkeit:	1.8μV, 30dB Fremdspannungsabstand 300Ω 1.5μV, 20dB Fremdspannungsabstand 300Ω 1.3μV, 30dB Fremdspannungsabstand 75Ω 0 9μV, 20dB Fremdspannungsabstand 75Ω
Harmonische Verzerrung.	MONO 0.15% STEREO 0.25%
Fremdspannungsabstad	MONO 56dB STEREO 54dB
Frequenzgang:	20Hz ~ 15kHz, +0.2dB, −0.8dB
Selektivität:	70dB
Gleichwellen-Selektion:	1.5dB
Spiegelselektion bei 98MHz:	53dB
ZF-Festigkeit bei 98MHz:	80dB
AM-Unterdrückung:	55dB
Stereo Übersprechdämpfung:	45dB bei 1kHz, 35dB bei 10kHz
Trägerrest (19kHz, 30kHz):	−65dB bei 19kHz, −75dB bei 38kHz
Begrenzung, Einsatzpunkt:	1.0μV
Bandbreite:	ZF-Verstäker 250kHz UKW-Demodulator 1000kHz

AM-TUNERTEIL

Empfangsbereoich:	525 ~ 1605kHz
Empfindlichkeit:	30μV, 260μV/m
Selektivität:	22dB
Spiegelselektion bei 1000kHz:	47dB
ZF-Festigkeit bei 1000kHz:	40dB

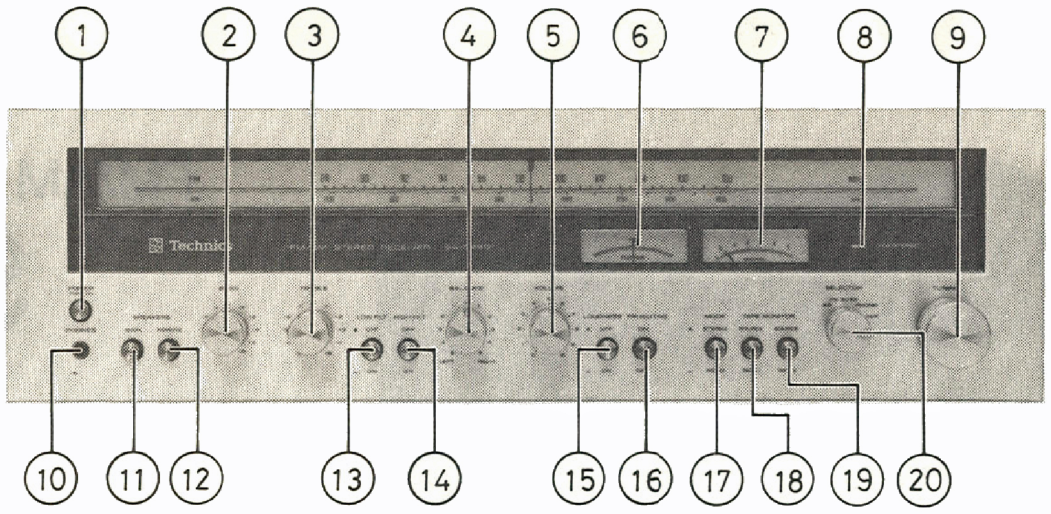
ALLGEMEINE DATEN

Leistungsaufnahme:	500W
Netzspannung umschaltbar:	110V/120V/220V/240V
Abmessungen (B x H x T):	500 x 150 x 420mm
Gewicht:	14kg

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

■ LOCATION OF CONTROLS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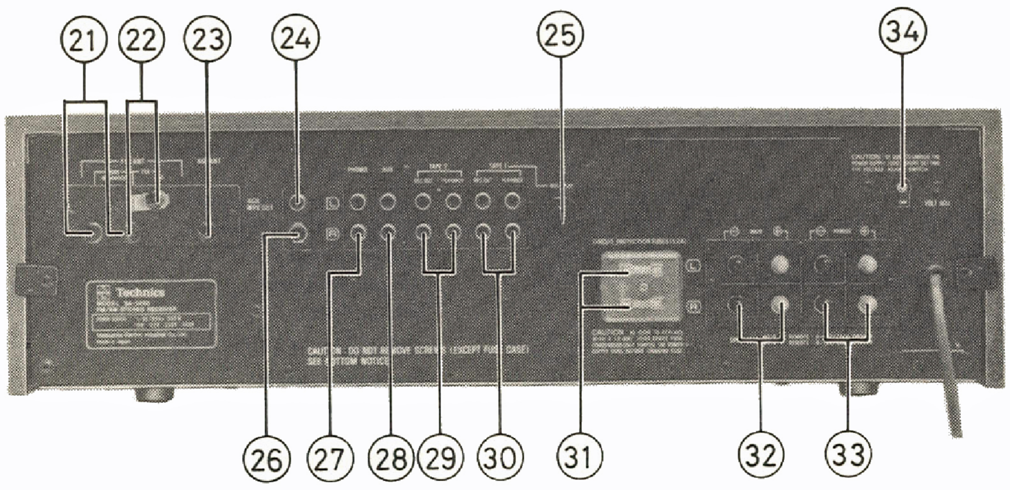
18
19
20

① POWER SWITCH
② BASS CONTROL
③ TREBLE CONTROL
④ BALANCE CONTROL
⑤ VOLUME CONTROL
⑥ FM TUNING METER
⑦ FM/AM SIGNAL METER
⑧ FM STEREO INDICATOR
⑨ TUNING CONTROL
⑩ HEADPHONES JACK
⑪ MAIN SPEAKER SWITCH
⑫ REMOTE SPEAKER SWITCH
⑬ LOW FILTER SWITCH
⑭ HIGH FILTER SWITCH
⑮ LOUDNESS SWITCH
⑯ FM MUTING SWITCH
⑰ MODE SWITCH
⑱ TAPE MONITOR (TAPE 1) SWITCH
⑲ TAPE MONITOR (TAPE 2) SWITCH
⑳ SELECTOR SWITCH


21
22
23
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34
26
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28
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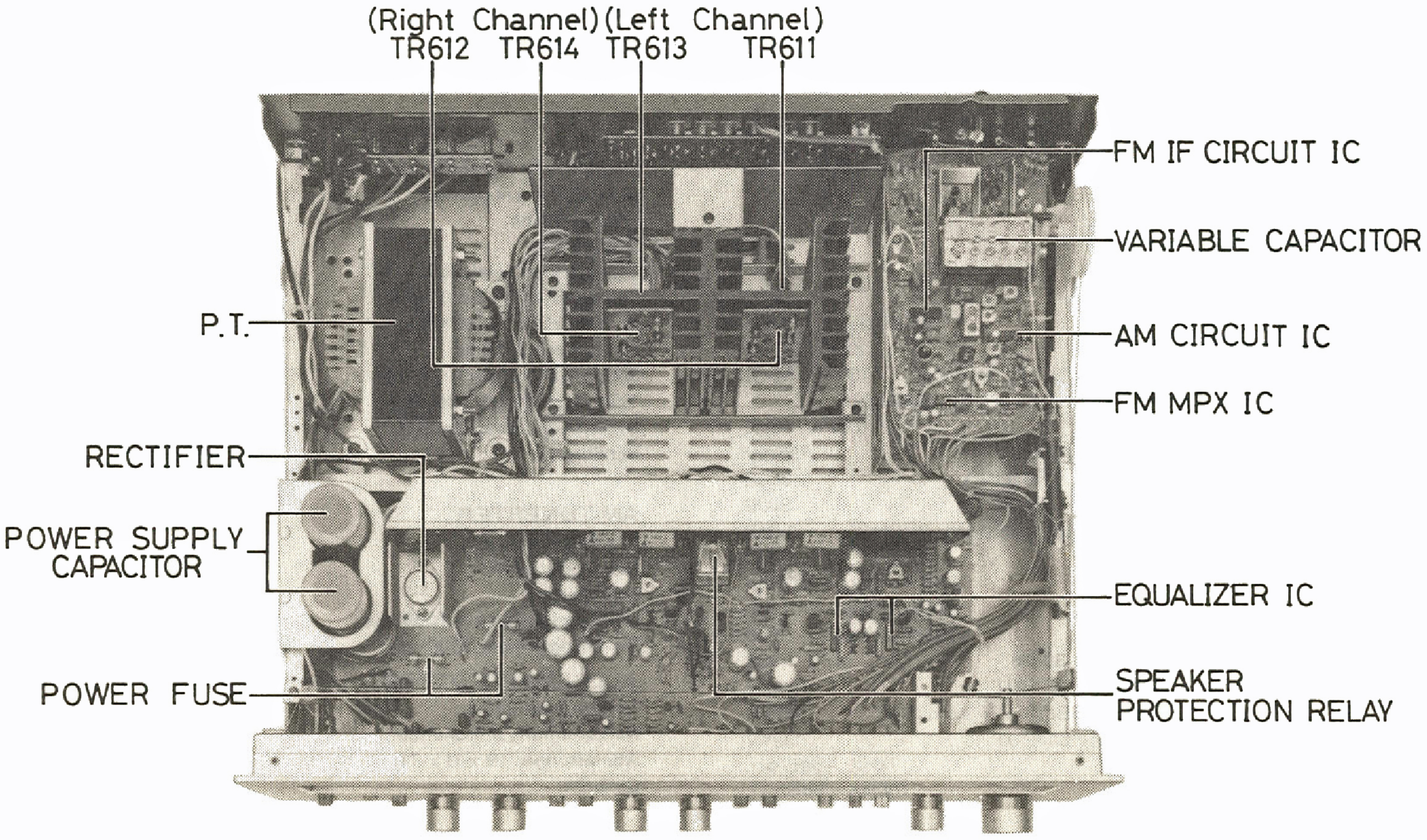
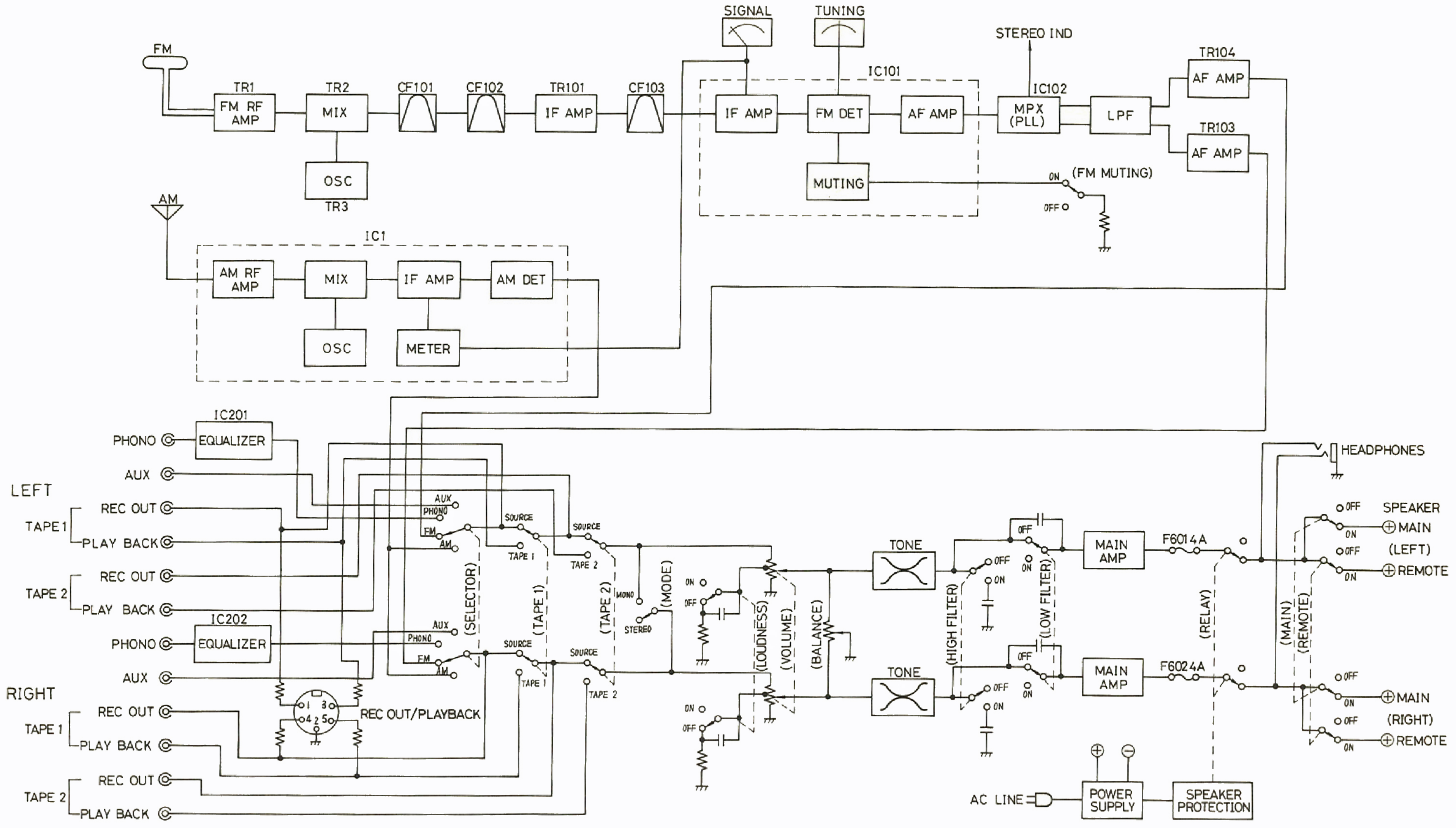
32
33

㉑ FM ANTENNA TERMINALS (300Ω)
㉒ FM ANTENNA TERMINALS (75Ω)
㉓ AM ANTENNA TERMINAL
㉔ 4CH MPX OUTPUT TERMINAL
㉕ REC/PLAY (TAPE 1) SOCKET
㉖ GROUND TERMINAL
㉗ PHONO INPUT TERMINALS
㉘ AUX INPUT TERMINALS
㉙ TAPE DECK 2 CONNECTION TERMINALS
㉚ TAPE DECK 1 CONNECTION TERMINALS
㉛ SPEAKER CIRCUIT PROTECTION FUSES
㉜ MAIN SPEAKER TERMINALS
㉝ REMOTE SPEAKER TERMINALS
㉞ VOLTAGE ADJUSTER

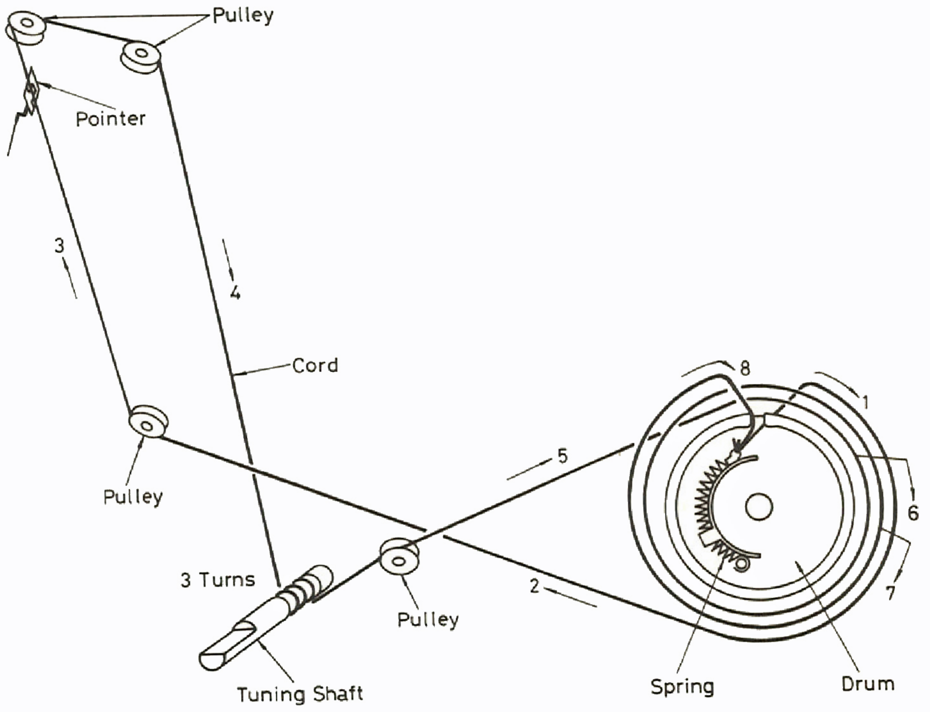

(Right Channel) (Left Channel)
TR612 TR614 TR613 TR611
FM IF CIRCUIT IC
VARIABLE CAPACITOR
AM CIRCUIT IC
FM MPX IC
P.T.
RECTIFIER
POWER SUPPLY CAPACITOR
POWER FUSE
EQUALIZER IC
SPEAKER PROTECTION RELAY

■ BLOCK DIAGRAM


FM
TR1
FM RF AMP
TR2
MIX
OSC
TR3
CF101
CF102
TR101
IF AMP
CF103
SIGNAL
TUNING
IC101
IF AMP
FM DET
AF AMP
MUTING
STEREO IND
IC102
MPX (PLL)
LPF
TR104
AF AMP
TR103
AF AMP
ON
(FM MUTING)
OFF
AM
IC1
AM RF AMP
MIX
IF AMP
AM DET
OSC
METER
IC201
PHONO
EQUALIZER
AUX
LEFT
REC OUT
TAPE 1
PLAY BACK
REC OUT
TAPE 2
PLAY BACK
IC202
PHONO
EQUALIZER
AUX
RIGHT
REC OUT
TAPE 1
PLAY BACK
REC OUT
TAPE 2
PLAY BACK
REC OUT/PLAYBACK
AUX
PHONO
FM
AM
SOURCE
TAPE 1
SOURCE
TAPE 2
(SELECTOR)
(TAPE 1)
(TAPE 2)
MONO
STEREO
(MODE)
ON
OFF
(LOUDNESS)
(VOLUME)
(BALANCE)
TONE
TONE
(HIGH FILTER)
(LOW FILTER)
OFF
ON
MAIN AMP
MAIN AMP
F6014A
F6024A
(RELAY)
HEADPHONES
(MAIN)
(REMOTE)
SPEAKER
⊕MAIN
(LEFT)
⊕REMOTE
⊕MAIN
(RIGHT)
⊕REMOTE
⊕ ⊖
AC LINE
POWER SUPPLY
SPEAKER PROTECTION

■ DIAL CORD INSTALLATION GUIDE

1. Dial cord length is 91¼" (230cm).
2. Tuning gang is positioned at maximum capacity. (Frequency is minimum)
3. Arrow marks (1 ~ 8) indicated correct order and direction of stringing dial cord.


Pulley
Pointer
3
4
Cord
Pulley
5
3 Turns
Pulley
2
8
1
6
7
Tuning Shaft
Spring
Drum

■ TO REMOVE CABINET

1. Loosen two (2) metal clamp-mounting screws, nos. ① and ② as shown in fig. 1.
2. Remove four (4) cabinet-mounting screws, nos. ③ ~ ⑥ as shown in fig. 2.
3. Remove cabinet from chassis in arrow direction 1 to 2, as shown in fig. 2.
4. To reassemble, reverse above procedure.

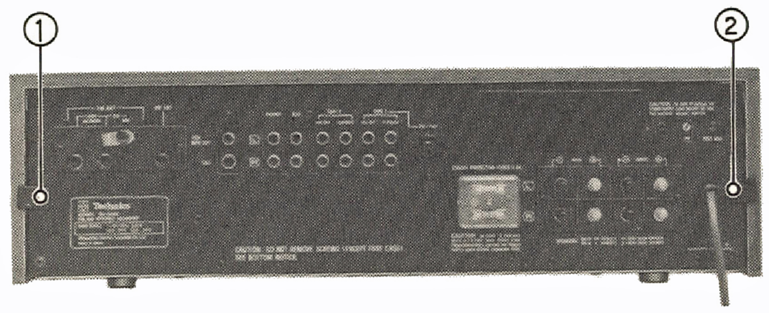


Fig. 1

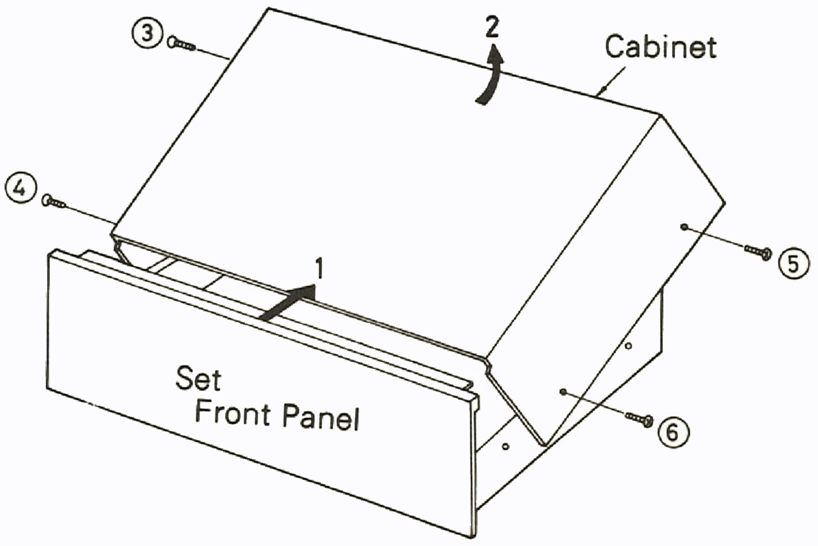
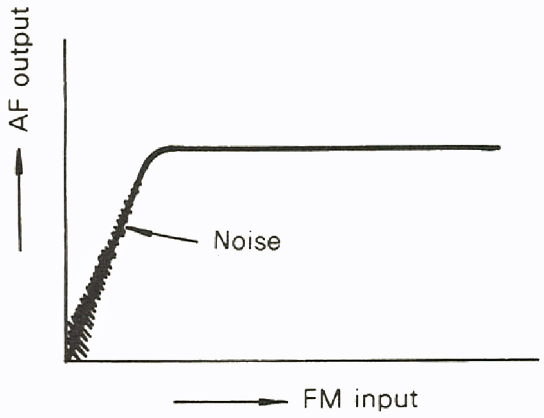

③
2
Cabinet
④
1
⑤
Set
Front Panel
⑥

Fig. 2

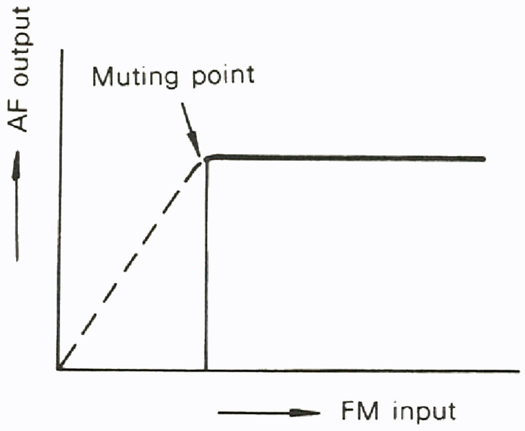
SERVICE AID

FM soft muting

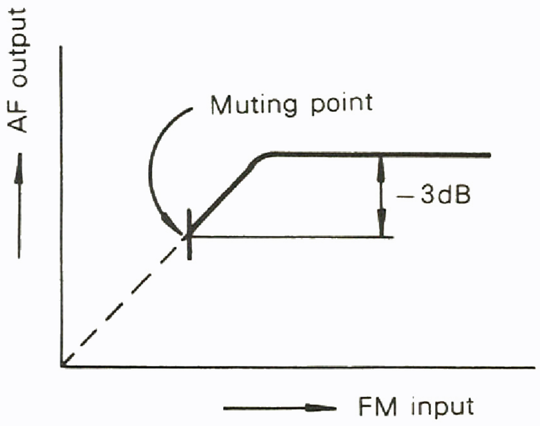
When moving the tuning point away from the point of maximum output (optimum tuning) the signal output gradually decreases until it reaches zero output. (between stations.) In conventional muting circuits a sharp "popping" noise is heard when tuning, due to the sudden (switch-like) action of the muting circuit from zero signal to full output. This "Soft muting" circuit lets the sound fade more gradually, making it more natural and pleasant to listen to.



Without muting



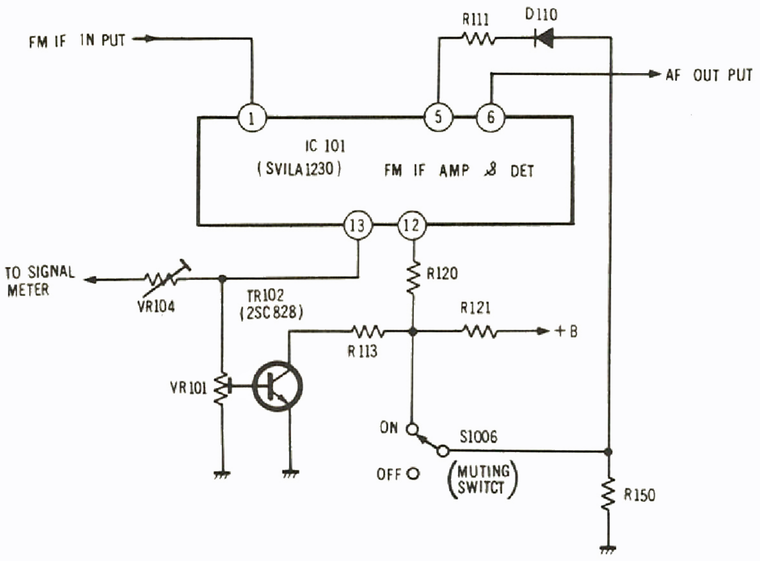
Conventional muting

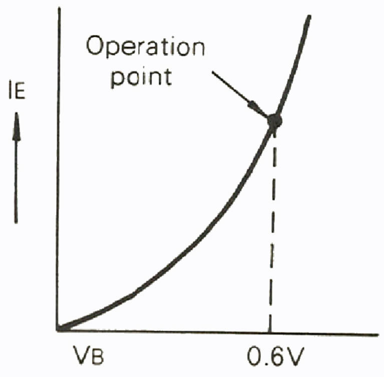


Soft muting

Circuitry principles

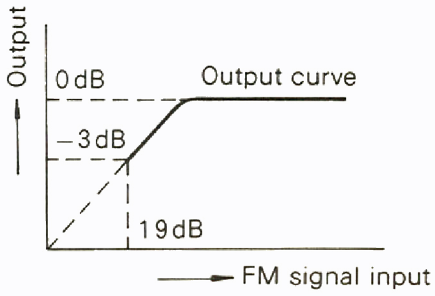
This circuit makes use of the VBE characteristics of TR102 (2SC828). (Refer to fig. 1.) The detected voltage from the FM IF input signal is applied to the base of TR102. When the FM input signal increases this voltage increases, causing the emitter current, to increase, which, in turn, decreases the collector voltage of TR102, making the collector voltage approache ground potential. Because the collector of TR102 is connected to the IC101 IF amplifier through the muting switch, a change in the collector voltage will control the output of the IC101 IF amplifier. When the FM input signal increases to the point that the base voltage of TR102 reaches its operating point (about 0.6V), the output of IC101 reaches maximum.





VBE curve of TR102

Fig. 1.



FM input vs. AF output curve

Fig. 2

FM RF ALIGNMENT INSTRUCTIONS ..... Only Set for Germany

ABGLEICHANWEISUNGEN.........VOR DEM ABGLEICH SORGFÄLTIG DURCHLESEN

MESSENDER		SKALENZEIGER-EINSTELLUNG DES EMPFÄNGERS [ABSTAND]	ANGEIGE (RÖHRENVOLTMETER ODER OSZILLOGRAPH)	ABGLEICH	BEMERKUNGEN
SCHALTUNG	FREQUENZ				
FM HF-ABGLEICH					
Anschluß an den FM Antennenanschluß über die künstliche. FM Antenne (Vgl. Abb. 1)	87.5MHz (100% Mod bei 400Hz)	87.5MHz [0mm]	Output meter über Lautsprecher-schwingspule anschließen.	L5 (Oszillatorspule)	Auf max. Ausgang abgleichen
〃	90MHz (〃)	90MHz (17.2mm)	〃	L3 (Zwischenkreis) L2 (Antennenspule)	〃
〃	106MHz (〃)	106MHz (174.1mm)	〃	CT3 (OSZ. Trimmer) CT2 (DET. Trimmer) CT1 (ANT. Trimmer)	〃

ALIGNMENT INSTRUCTIONS

MAIN AMP (Icq) ALIGNMENT

Notes:
1. The "Icq" adjustment should be started about 5 minutes after setting the power switch to the ON position.
2. Speakers switch to OFF position.

1
1 Connect DC VTVM between TP602 and TP603 (Left channel), TP604 and TP605 (Right channel)
2 Adjust VR601 (Left channel) and VR602 (Right channel) to 12mV on DC VTVM indication.

Notes:
1. Muting switch .... OFF
2. Band selector switch............AM/FM AUTO (FM, RF, FM-IF)
3. 300Ω FM dummy antenna............................Refer to fig. 3.
4. Speaker switch...ON
5. Mode switch................................... MONO
6. Maintain line voltage at rated voltage.
7. Output of signal generator should be no higher than necessary to obtain an output reading.

	SIGNAL GENERATOR or SWEEP GENERATOR		DIAL SETTING [DISTANCE]	INDICATOR (VTVM or SCOPE) (DISTORTION METER)	ADJUSTMENT POINTS	REMARKS
	CONNECTION	FREQUENCY				
	AM ALIGNMENT					
2	High side through 0.001μF to **AM** antenna trimmer terminal. Common to chassis.	455kHz (Set for England to 470KHz)	Point of non-inter-ference	Connect vertical ampli-fier of scope to **TP1.** through 0.1μF.	T1 (1st IFT) (P) T2 (2nd IFT) (S) T3 (IF Trap)	Adjust for maximum output.
3	Fashion loop of several turns of wire and radiate signal into loop of tuner.	600kHz (30% Mod. with 400Hz)	600kHz [1¼" (31.5mm)]	Connect VTVM or scope to speaker terminal of receiver.	L6 (OSC Coil) L8 (ANT Coil)	Adjust for maximum output, Adjust L8 by moving coil bobbin. along territe core.
4	Fashion loop of several turns of wire and radiate signal into loop of tuner.	1500kHz (30% Mod. with 400Hz)	1500kHz [7 3/32" (180.1mm)]	Connect VTVM or scope to speaker terminal of receiver.	CT5 (OSC Trimmer) CT4 (ANT Trimmer)	Adjust for maximum output. Repeat steps (3) and (4).
	FM-IF ALIGNMENT					
5		No Signal	Point of non-inter-ference.	Tuning meter of set.	T101 (DISCRI IFT)(A) Orange Core	Adjust for center position of tuning meter.
	FM-RF ALIGNMENT					
6	Connect to FM antenna terminal through FM dummy antenna.	90MHz (100% Mod. with 400Hz)	90MHz [¾" (19.2mm)]	Connect VTVM or scope to speaker terminal of receiver.	L5 (OSC Coil) L3 (DET Coil) L2 (ANT Coil)	Adjust for maximum output.
7	Connect to FM antenna terminal through FM dummy antenna.	106MHz (100% Mod. with 400Hz)	106MHz [6 15/16" (176.2mm)]	Connect VTVM or scope to speaker terminal of receiver.	CT3 (OSC Trimmer) CT2 (DET Trimmer) CT1 (ANT Trimmer)	Adjust for maximum output. Repeat steps (6) and (7).
	FM MONO DISTORTION ALIGNMENT					
8	Connect to FM antenna terminal through FM dummy antenna.	100MHz (100% Mod. with 400Hz)	100MHz	Connect distortion meter to speaker terminal of receiver.	T101 (DISCRI IFT)(B) Green Core	Adjust for minimum distortion meter indication.

FM SIGNAL METER ALIGNMENT

9
① Apply 100MHz FM signal of 100 dB, 400Hz 30% modulation to FM antenna terminal through FM dummy antenna.
② Tuning 100MHz for maximum output by speaker terminal.
③ Adjust **VR104** for about 4.7 point of signal meter indication.

SOFT MUTING LEVEL ALIGNMENT .... Refer to SERVICE AID on page 4.

10
① Muting switch to "off".
② Apply a 60 dB (1mV) mono RF FM signal to the antenna terminals.
③ Adjust Volume Control of receiver to indicate 0 dB on meter across speaker terminals.
④ Muting switch to "on".
⑤ Reduce FM signal to 19 dB (9μV).
⑥ Adjust **VR101** to **−3 dB** on output meter. Refer to fig. 6.

FM MPX PILOT ALIGNMENT

11

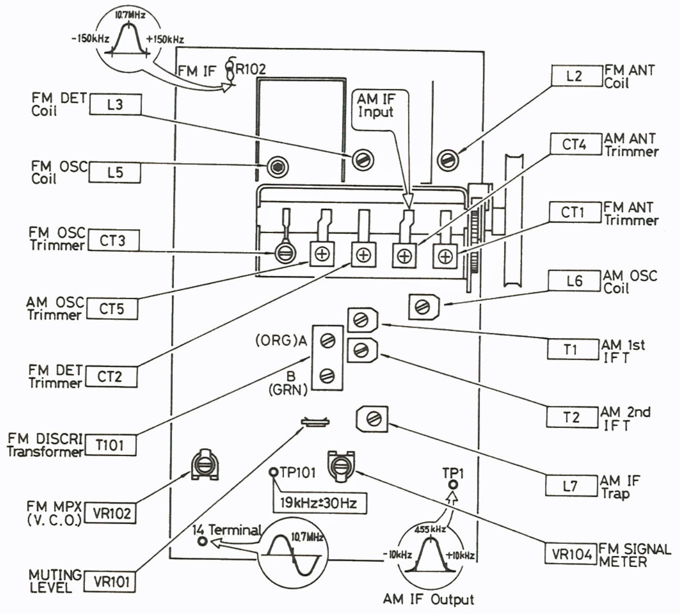
Using a frequency counter	Using alternate system
① 98MHz Non-modulated mono signal applied to set. ② Muting switch to "on". ③ Connect frequency counter to **TP101** through resistor (100kΩ). ④ Adjust **VR102** to 19kHz ±30Hz.	① Apply stereo signal from generator or stereo station to receiver. ② Adjust **VR102** until stereo indicator lights up. Cement arm of **VR102** as shown in fig. 4.

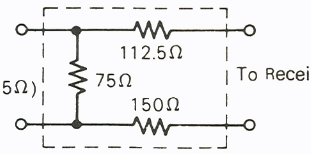
STEREO SEPARATION ALIGNMENT

Note:
1. Stereo modulator .... Connect stereo modulator output to EXT. MOD. terminal of signal generator.
   Internal OSC.................... 1kHz Pilot signal modulation................ 10%
2. Signal generator .... Frequency approximately 98MHz. Output level 72 dB (IHF). Modulation mode to FM.
3. Band selector switch .... FM AUTO
4. Mode switch.......................... STEREO

	SIGNAL GENERATOR CONNECTION	STEREO MODULATOR MODE and MOD. RATE	INDICATOR (VTVM or SCOPE)	ADJUSTMENT POINTS	REMARKS
12	FM antenna terminal through dummy antenna.	L (and R) 30% Modula-tion.	Connect VTVM or scope to speaker terminals through low pass filter. Refer to fig. 5.	VR103	Adjust for minimum right (and left) output.

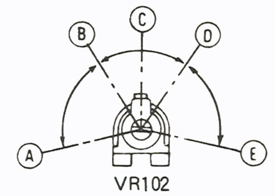
• Alignment Points (FM/AM RF & IF Circuit)


10.7MHz
-150kHz
+150kHz
FM IF
R102
FM DET Coil
L3
AM IF Input
L2
FM ANT Coil
FM OSC Coil
L5
CT4
AM ANT Trimmer
CT1
FM ANT Trimmer
FM OSC Trimmer
CT3
L6
AM OSC Coil
AM OSC Trimmer
CT5
(ORG)A
B (GRN)
T1
AM 1st IFT
FM DET Trimmer
CT2
T2
AM 2nd IFT
FM DISCRI Transformer
T101
L7
AM IF Trap
TP101
19kHz±30Hz
TP1
FM MPX (V. C. O.)
VR102
14 Terminal
10.7MHz
455kHz
-10kHz
+10kHz
VR104
FM SIGNAL METER
MUTING LEVEL
VR101
AM IF Output


To SG (SG imp. 75Ω)
112.5Ω
75Ω
150Ω
To Receiver

300Ω FM Dummy Antenna

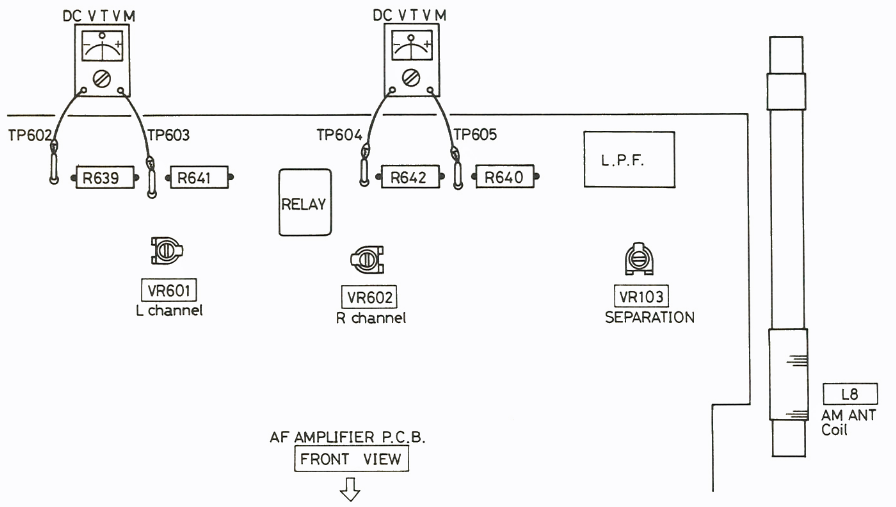
Fig. 3



Ⓐ～Ⓑ, Ⓓ～Ⓔ : Stereo OFF Position
Ⓑ～Ⓓ : Stereo ON Position (Indicator Lighting)
Ⓒ : Adjust Point of Pilot Circuit.

Fig. 4

• Alignment Points (AF Amplifier Circuit)


DC VTVM
DC VTVM
TP602
TP603
TP604
TP605
R639
R641
R642
R640
L.P.F.
RELAY
VR601
L channel
VR602
R channel
VR103
SEPARATION
L8
AM ANT Coil
AF AMPLIFIER P.C.B.
FRONT VIEW

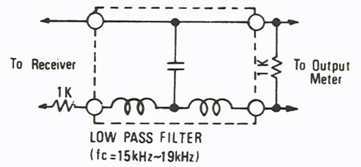
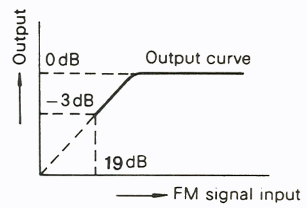

To Receiver
1K
1K
To Output Meter
LOW PASS FILTER
(fc=15kHz~19kHz)

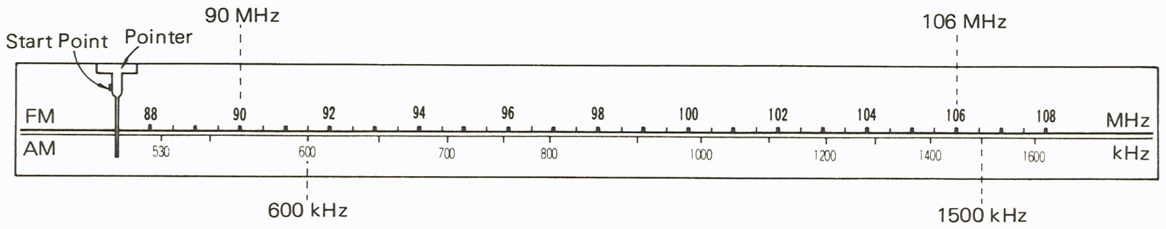
Fig. 5



FM input vs. AF output curve

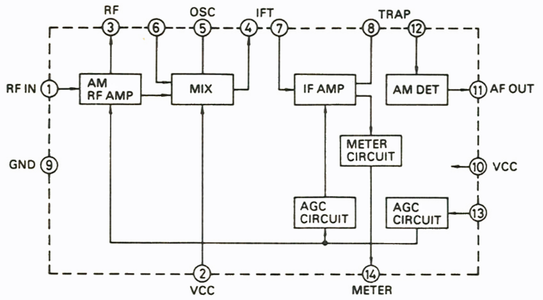
Fig. 6

• Dial Scale and Start Point of Dial Pointer

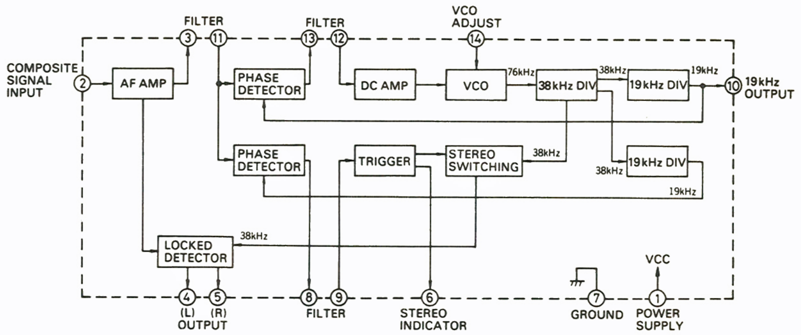

90 MHz
106 MHz
Start Point
Pointer
FM
88
90
92
94
96
98
100
102
104
106
108
MHz
AM
530
600
700
800
1000
1200
1400
1600
kHz
600 kHz
1500 kHz

■ BLOCK DIAGRAM OF INTEGRATED CIRCUIT

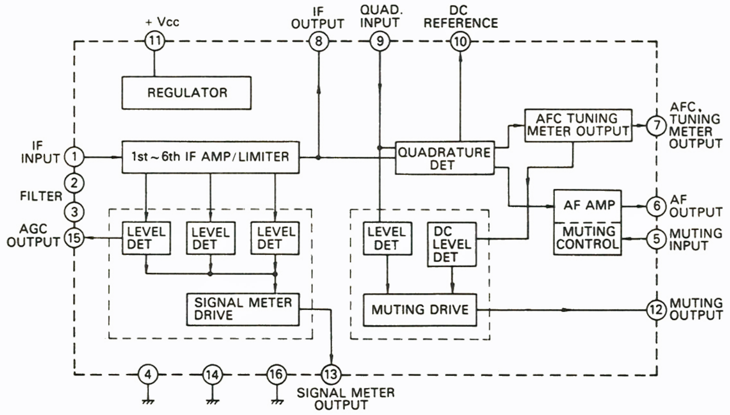
- **IC1 (SVIHA1151)**
  AM RF, OSC, MIX, IF AMP & AM DETECTOR CIRCUIT


RF
OSC
IFT
TRAP
RF IN
AM RF AMP
MIX
IF AMP
AM DET
AF OUT
METER CIRCUIT
VCC
GND
AGC CIRCUIT
AGC CIRCUIT
VCC
METER

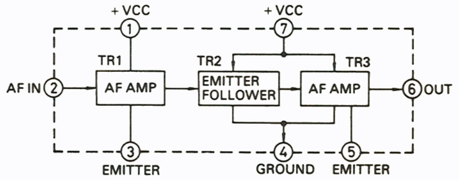
- **IC102 (SVIHA1156)**
  FM MULTIPLEX CIRCUIT


FILTER
FILTER
VCO ADJUST
COMPOSITE SIGNAL INPUT
AF AMP
PHASE DETECTOR
DC AMP
VCO
76kHz
38kHz DIV
38kHz
19kHz DIV
19kHz
19kHz OUTPUT
PHASE DETECTOR
TRIGGER
STEREO SWITCHING
38kHz
19kHz DIV
LOCKED DETECTOR
38kHz
VCC
(L) (R) OUTPUT
FILTER
STEREO INDICATOR
GROUND
POWER SUPPLY

- **IC101 (SVILA1230)**
  FM IF AMP, FM DETECTOR & MUTING CIRCUIT

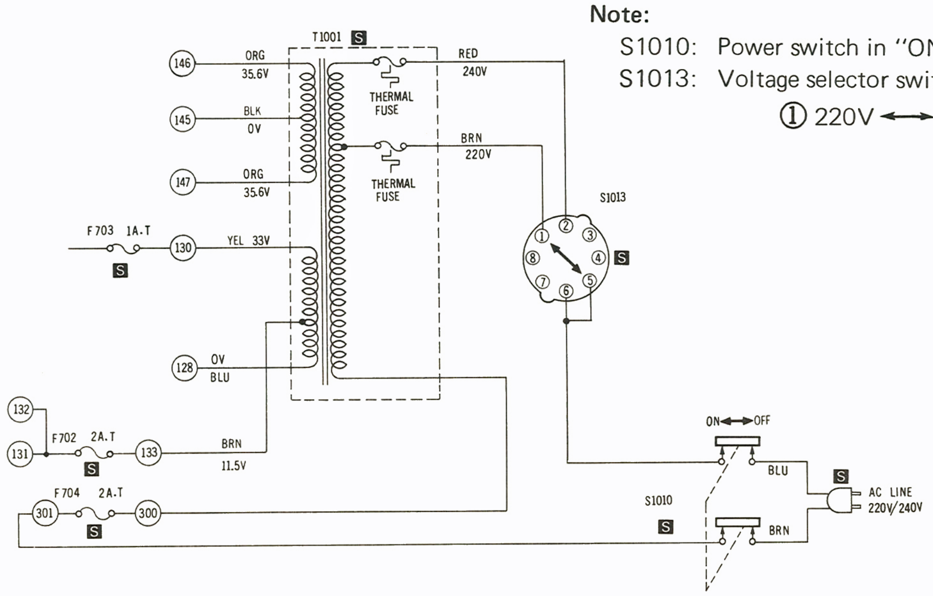

+Vcc
IF OUTPUT
QUAD. INPUT
DC REFERENCE
REGULATOR
IF INPUT
1st～6th IF AMP/LIMITER
QUADRATURE DET
AFC TUNING METER OUTPUT
AFC TUNING METER OUTPUT
FILTER
AGC OUTPUT
LEVEL DET
LEVEL DET
LEVEL DET
LEVEL DET
DC LEVEL DET
AF AMP
AF OUTPUT
MUTING CONTROL
MUTING INPUT
SIGNAL METER DRIVE
MUTING DRIVE
MUTING OUTPUT
SIGNAL METER OUTPUT

- **IC201, 202 (SVITA7129P)**
  EQUALIZER AMPLIFIER


+VCC
+VCC
TR1
TR2
TR3
AF IN
AF AMP
EMITTER FOLLOWER
AF AMP
OUT
EMITTER
GROUND
EMITTER

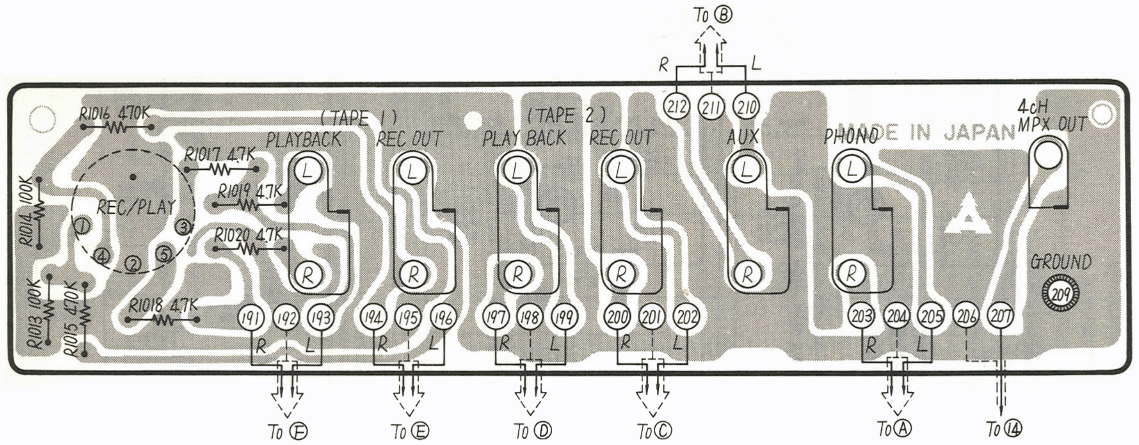
■ CIRCUIT OF POWER SUPPLY .... Only Set for England (XE)

Note:
S1010: Power switch in "ON" position.
S1013: Voltage selector switch in "220V" position.
① 220V ⟷ ② 240V


T1001 S
ORG 35.6V
RED 240V
THERMAL FUSE
BLK 0V
BRN 220V
THERMAL FUSE
ORG 35.6V
S1013
F703 1A-T
YEL 33V
S
0V BLU
F702 2A-T
BRN 11.5V
F704 2A-T
ON ⟷ OFF
BLU
S1010
BRN
AC LINE 220V/240V
S

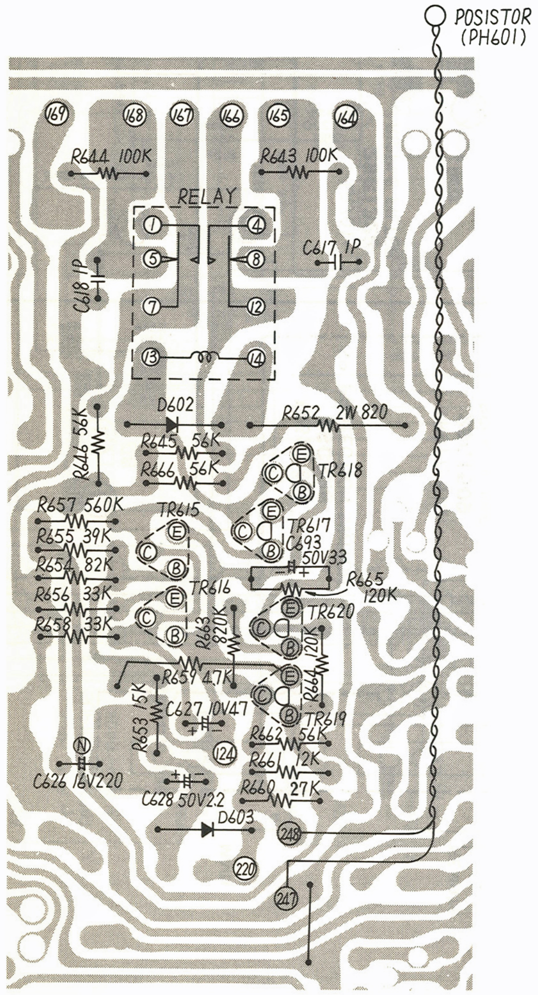
Note: **S** indicates that only parts specified by the manufacture be used for replacement in critical circuits.

■ INPUT & TAPE DECK CONNECTION TERMINAL CIRCUIT BOARD

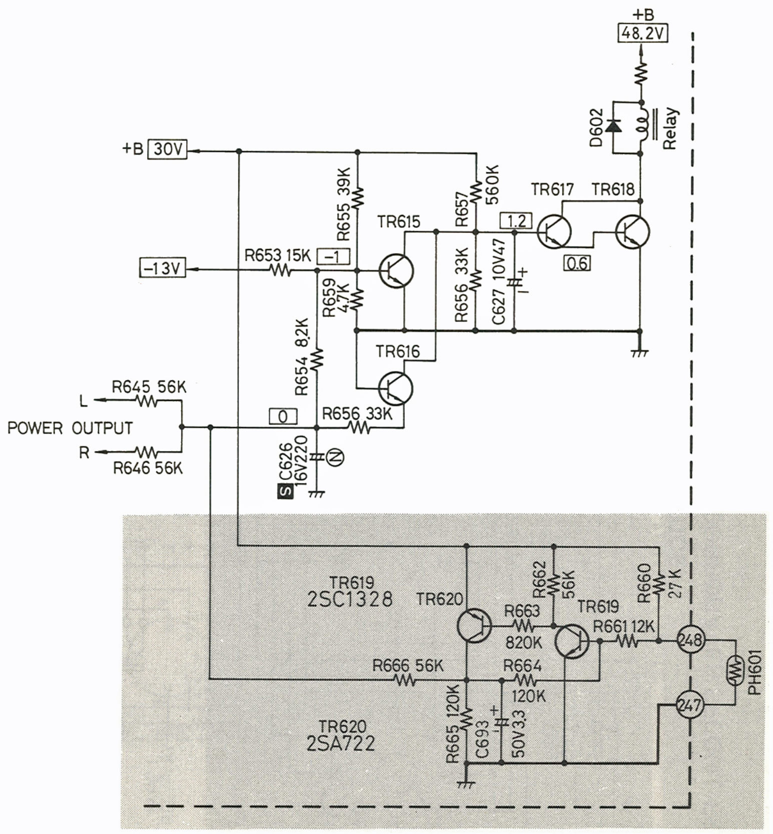

To Ⓑ
R
L
(TAPE 1)
PLAYBACK
REC OUT
(TAPE 2)
PLAY BACK
REC OUT
AUX
PHONO
MADE IN JAPAN
4cH MPX OUT
R1016 470K
R1017 4.7K
R1019 4.7K
R1020 4.7K
R1018 4.7K
R1014 100K
R1013 100K
R1015 470K
REC/PLAY
GROUND
To Ⓕ
To Ⓔ
To Ⓓ
To Ⓒ
To Ⓐ
To ⑭

■ SPEAKER PROTECTION CIRCUIT .... Only Set for England (XE)

- **Printed Circuit Board**


POSISTOR (PH601)
R644 100K
R643 100K
RELAY
C618 1P
C617 1P
D602
R652 2W 820
R646 56K
R645 56K
R666 56K
TR618
R657 560K
TR615
TR617
R655 39K
C693 50V33
R654 82K
R665 120K
R656 33K
TR616
TR620
R658 33K
R659 4.7K
R653 15K
C627 10V47
TR619
R662 56K
R661 12K
R660 27K
C626 16V220
C628 50V22
D603

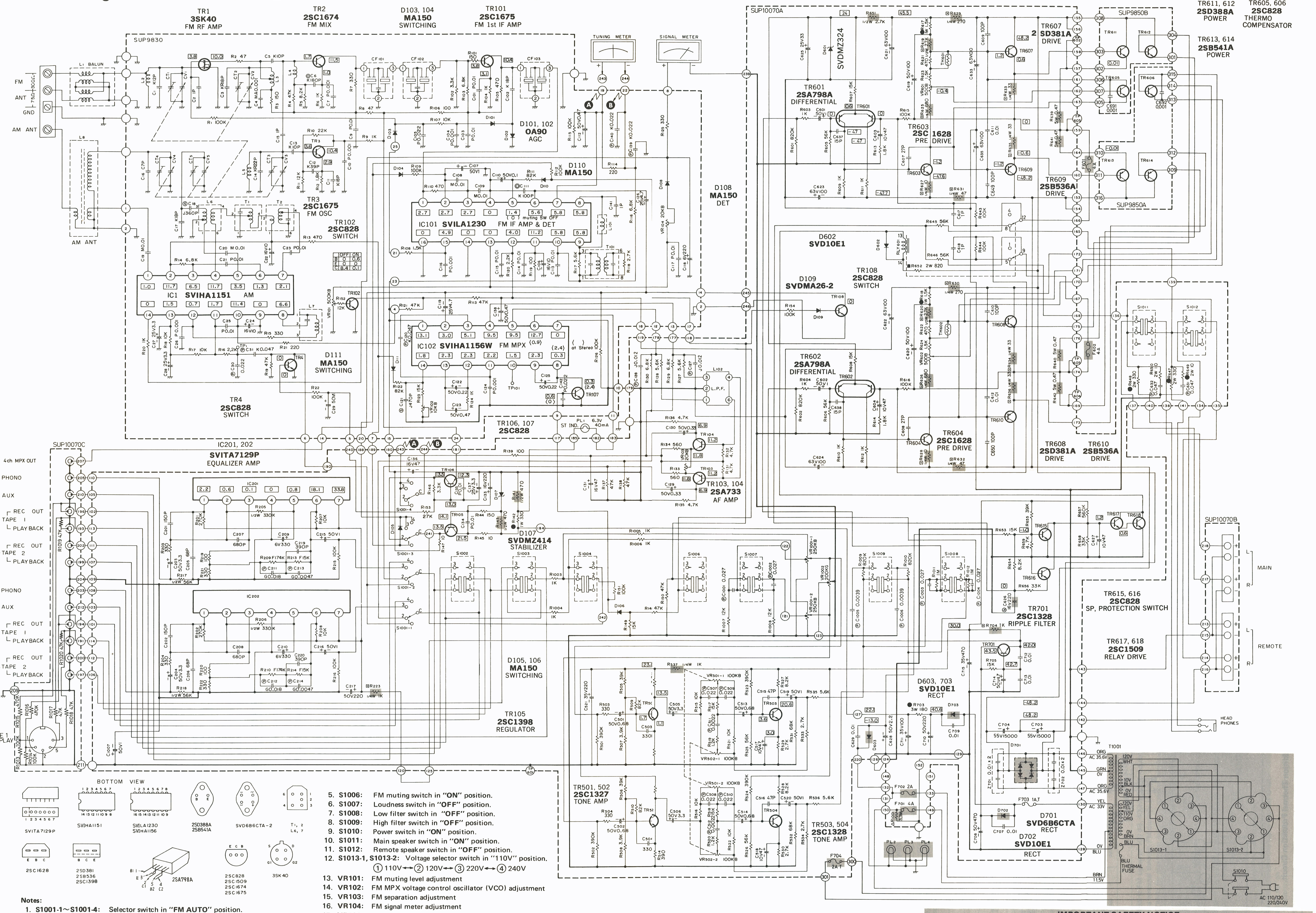
- **Schematic Diagram**


+B 48.2V
D602
Relay
+B 30V
R655 39K
R657 560K
TR615
TR617
TR618
1.2
-13V
R653 15K
-1
R659 4.7K
R656 33K
C627 10V47
0.6
TR616
R654 82K
L
R645 56K
POWER OUTPUT
R
R646 56K
0
R656 33K
C626 16V220
S
TR619 2SC1328
TR620
R663 820K
R662 56K
TR619
R661 12K
R660 27K
R666 56K
R664 120K
TR620 2SA722
R665 120K
C693 50V33
PH601

Addition Thermal Protection Circuit

Schematic Diagram......Model SA-5460 (X), (XG), (XGH), (XSD), (XSW)

(This schematic diagram may be modified at any time with the development of new technology)


TR1 3SK40 FM RF AMP
TR2 2SC1674 FM MIX
D103, 104 MA150 SWITCHING
TR101 2SC1675 FM 1st IF AMP
TUNING METER
SIGNAL METER
SUP9830
SUP10070A
SUP9850B
SUP9850A
SUP10070C
SUP10070B
FM ANT 75Ω 300Ω
GND
AM ANT
L1 BALUN
D101, 102 OA90 AGC
D110 MA150
D108 MA150 DET
TR3 2SC1675 FM OSC
TR102 2SC828 SWITCH
IC101 SVILA1230 FM IF AMP & DET
IC1 SVIHA1151 AM
IC102 SVIHA1156W FM MPX
D111 MA150 SWITCHING
TR4 2SC828 SWITCH
TR106, 107 2SC828
ST IND. PL1 6.3V 40mA
IC201, 202 SVITA7129P EQUALIZER AMP
TR103, 104 2SA733 AF AMP
D107 SVDMZ414 STABILIZER
D105, 106 MA150 SWITCHING
TR105 2SC1398 REGULATOR
TR501, 502 2SC1327 TONE AMP
TR503, 504 2SC1328 TONE AMP
4ch MPX OUT
PHONO
AUX
REC OUT
TAPE 1
PLAY BACK
TAPE 2
L
R
TAPE 1 REC/PLAY
TR601 2SA798A DIFFERENTIAL
TR602 2SA798A DIFFERENTIAL
TR603 2SC1628 PRE DRIVE
TR604 2SC1628 PRE DRIVE
TR607 2SD381A DRIVE
TR608 2SD381A DRIVE
TR609 2SB536A DRIVE
TR610 2SB536A DRIVE
TR611, 612 2SD388A POWER
TR613, 614 2SB541A POWER
TR605, 606 2SC828 THERMO COMPENSATOR
D602 SVD10E1
D109 SVDMA26-2
TR108 2SC828 SWITCH
SVDMZ324
TR615, 616 2SC828 SP, PROTECTION SWITCH
TR617, 618 2SC1509 RELAY DRIVE
TR701 2SC1328 RIPPLE FILTER
D603, 703 SVD10E1 RECT
D701 SVD6B6CTA RECT
D702 SVD10E1 RECT
T1001
MAIN
REMOTE
HEAD PHONES
THERMAL FUSE
AC 110/120 220/240V
BOTTOM VIEW
SVITA7129P
SVIHA1151
SVILA1230 SVIHA1156
2SD388A 2SB541A
SVD6B6CTA-2
T1, 2 L6, 7
2SC1628
2SD381 2SB536 2SC1398
2SA798A
2SC828 2SC1509 2SC1674 2SC1675
3SK40

Notes:

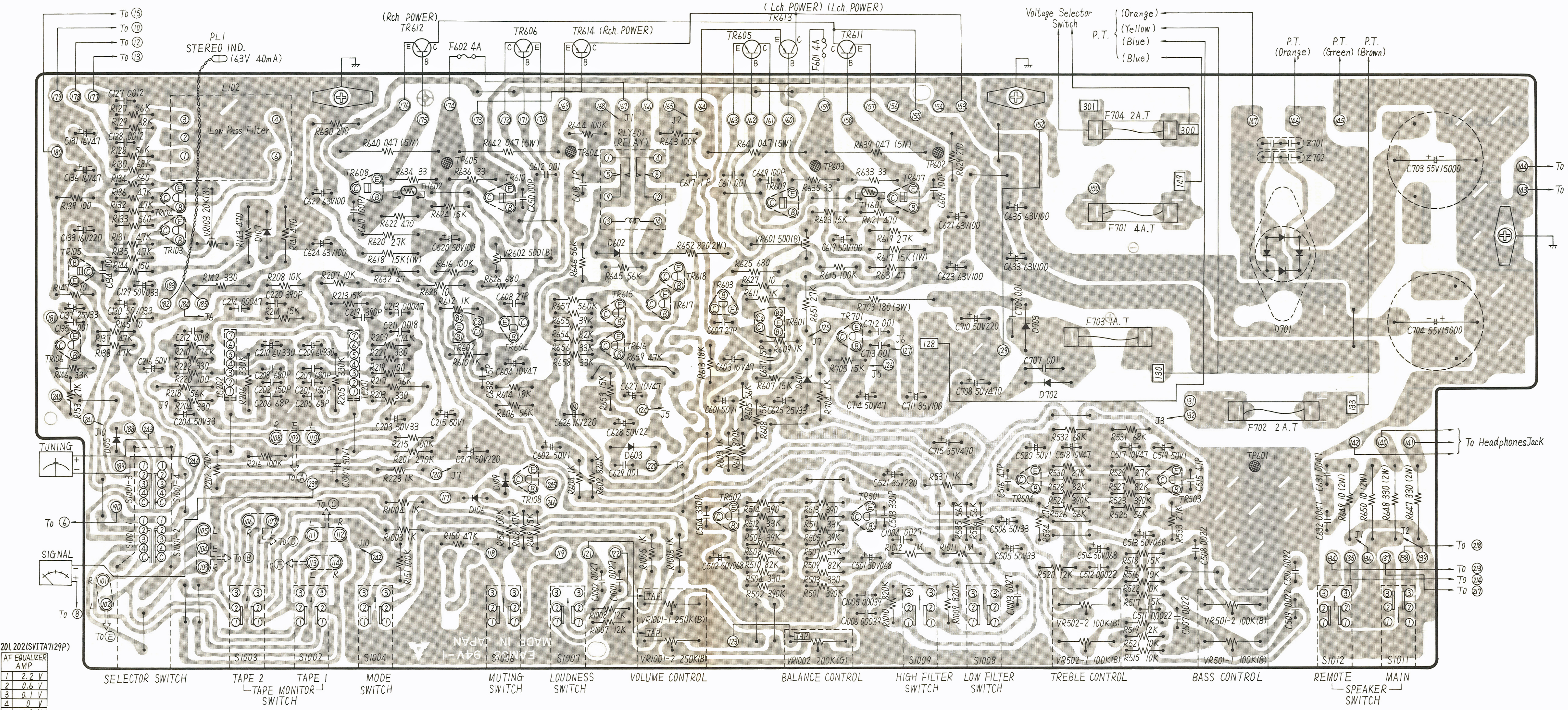
1. **S1001-1～S1001-4:** Selector switch in "**FM AUTO**" position.
   ① AM ⟷ ② FM AUTO ⟷ ③ PHONO ⟷ ④ AUX
2. **S1001:** Tape monitor (TAPE 1) switch in "**SOURCE**" position.
3. **S1003:** Tape monitor (TAPE 2) switch in "**SOURCE**" position.
4. **S1004:** Mode switch in "**STEREO**" position.
5. **S1006:** FM muting switch in "**ON**" position.
6. **S1007:** Loudness switch in "**OFF**" position.
7. **S1008:** Low filter switch in "**OFF**" position.
8. **S1009:** High filter switch in "**OFF**" position.
9. **S1010:** Power switch in "**ON**" position.
10. **S1011:** Main speaker switch in "**ON**" position.
11. **S1012:** Remote speaker switch in "**OFF**" position.
12. **S1013-1, S1013-2:** Voltage selector switch in "110V" position.
    ① 110V ⟷ ② 120V ⟷ ③ 220V ⟷ ④ 240V
13. **VR101:** FM muting level adjustment
14. **VR102:** FM MPX voltage control oscillator (VCO) adjustment
15. **VR103:** FM separation adjustment
16. **VR104:** FM signal meter adjustment
17. **VR501:** Bass control
18. **VR502:** Treble control
19. **VR601, 602:** Power transistor ICQ adjustment
20. **VR1001:** Volume control
21. **VR1002:** Balance control
22. DC voltag measurements are taken with DC voltmeter from chassis ground.
    ▭ ...... FM/AM non signal condition
    〈 〉 ...... FM stereo signal reception
    ( ) ...... FM muting to "ON" position

IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR SAFETY.

WHEN SERVICING IT IS ESSENTIAL THAT ONLY MANUFACTUR'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

■ EQUALIZER, TONE CONTROL, MAIN AMPLIFIER, SPEAKER PROTECTION & POWER SUPPLY CIRCUIT BOARD


PL1
STEREO IND.
(63V 40mA)
(Rch POWER)
TR612
TR606
TR614 (Rch POWER)
(Lch POWER) (Lch POWER)
TR613
TR605
TR611
F602 4A
F601 4A
Voltage Selector Switch
P.T.
(Orange)
(Yellow)
(Blue)
(Blue)
P.T. (Orange)
P.T. (Green)
P.T. (Brown)
F704 2A.T
F701 4A.T
F703 1A.T
F702 2A.T
C703 55V15000
C704 55V15000
D701
Low Pass Filter
RLY601 (RELAY)
TP601
To Headphones Jack
TUNING
SIGNAL
SELECTOR SWITCH
S1003
TAPE 2
S1002
TAPE 1
TAPE MONITOR SWITCH
S1004
MODE SWITCH
S1006
MUTING SWITCH
S1007
LOUDNESS SWITCH
VR1001-2 250K(B)
VOLUME CONTROL
VR1002 200K(G)
BALANCE CONTROL
S1009
HIGH FILTER SWITCH
S1008
LOW FILTER SWITCH
VR502-1 100K(B)
TREBLE CONTROL
VR501-1 100K(B)
BASS CONTROL
S1012
REMOTE
S1011
MAIN
SPEAKER SWITCH
EAW0S 94V-1 MADE IN JAPAN

IC201, 202 (SVITA7129P)

	AF EQUALIZER AMP
1	2.2 V
2	0.6 V
3	0.1 V
4	0 V
5	0.8 V
6	18.1 V
7	33.8 V

TR103, 104 (2SA733)

	AF AMP
E	11.8 V
C	6.9 V
B	11.2 V

TR105 (2SC1398)

	REGULATOR
E	13.5 V
C	21.5 V
B	14.1 V

TR106 (2SC828)

	REGULATOR
E	12.3 V
C	13.5 V
B	13 V

TR108 (2SC828)

	SWITCHING
E	0 V
C	0 V
B	0 V

TR501, 502 (2SC1327)

	TONE AMP
E	1.1 V
C	13.5 V
B	1.7 V

TR503, 504 (2SC1328)

	TONE AMP
E	3 V
C	20.6 V
B	3.6 V

TR601, 602 (2SA798)

	DEIFFRENTIAL
E	0.6 V
B1	0 V
B2	0 V
C1	−47 V
C2	−47 V

TR603, 604 (2SC1628)

	PRE DRIVE
E	−47.6 V
C	−1.2 V
B	−47 V

TR605, 606 (2SC828)

	THERMO COMP
E	−1.2 V
C	1.2 V
B	−0.4 V

TR607, 608 (2SD381)

	DRIVE
E	0.6 V
C	48.2 V
B	1.2 V

TR609, 610 (2SB536)

	DRIVE
E	−0.6 V
C	−48.2 V
B	−1.2 V

TR611, 612 (2SD388A)

	POWER
E	0.01 V
C	48.2 V
B	0.6 V

TR613, 614 (2SB541A)

	POWER
E	−0.01 V
C	−48.2 V
B	−0.6 V

TR615 (2SC828)

	SWITCH
E	0 V
C	1.2 V
B	−1 V

TR616 (2SC828)

	SWITCH
E	0 V
C	1.2 V
B	0 V

TR617 (2SC1509)

	RELAY DRIVE
E	0.6 V
C	30 V
B	1.2 V

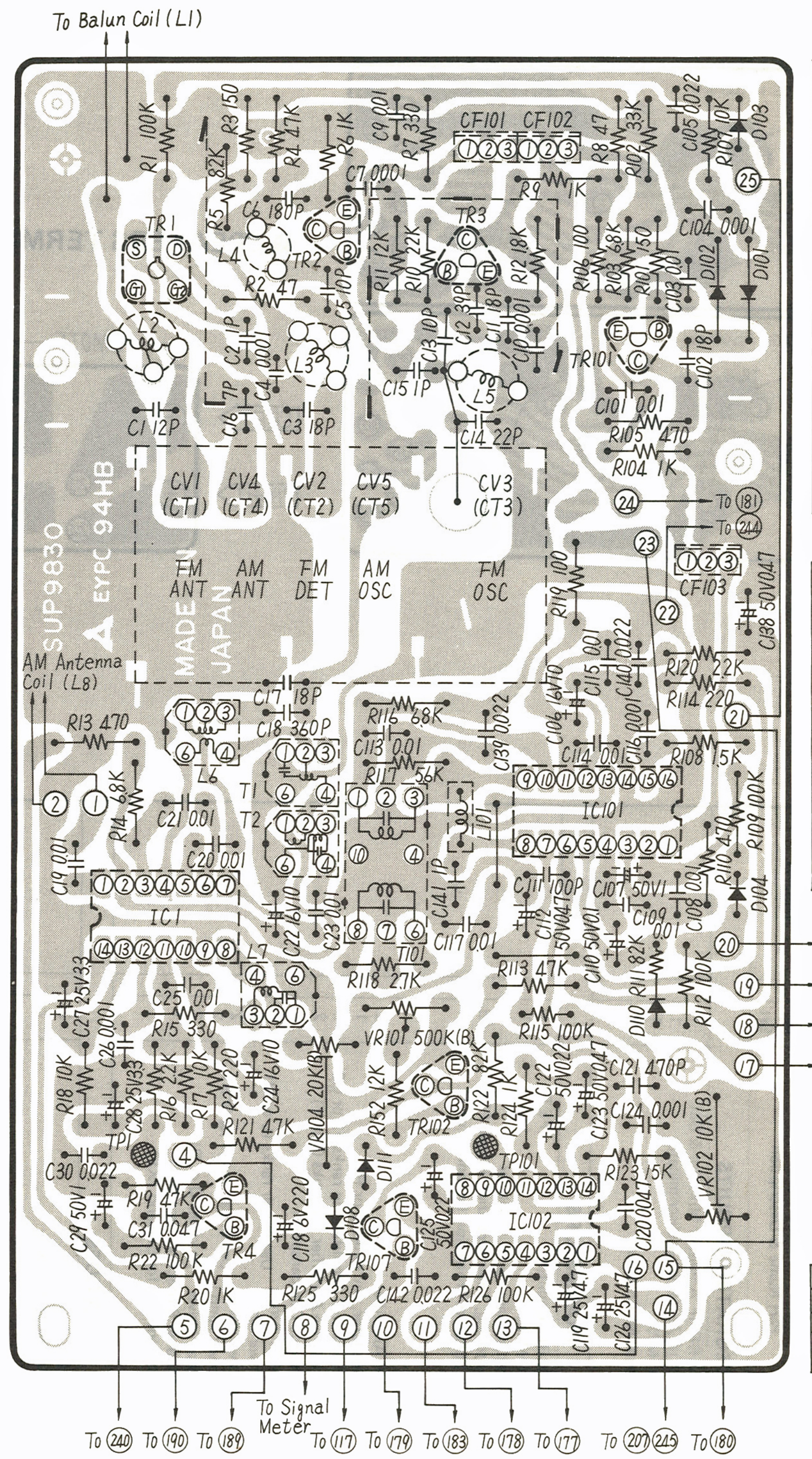
TR618 (2SC1509)

	RELAY DRIVE
E	0 V
C	30 V
B	0.6 V

TR701 (2SC1328)

	RIPPLE FILTER
E	42 V
C	43.5 V
B	42.7 V

■ FM RF, FM IF AMPLIFIER, FM MPX & AM CIRCUIT BOARD


To Balun Coil (L1)
TR1
TR2
TR3
TR4
TR101
TR102
TR107
IC1
IC101
IC102
CF101
CF102
CF103
CV1 (CT1)
CV4 (CT4)
CV2 (CT2)
CV5 (CT5)
CV3 (CT3)
FM ANT
AM ANT
FM DET
AM OSC
FM OSC
SUP9830
EYPC 94HB
MADE IN JAPAN
AM Antenna Coil (L8)
VR101 500K(B)
VR102 10K(B)
To 24
To 25
To 181
To 244
To 188
To 243
To 119
To 118
To 240
To 190
To 189
To Signal Meter
To 117
To 179
To 183
To 178
To 177
To 207 245
To 180

IC1 (SVIHA1151)

AM. RF. OSC. MIX. IF. DET			
1	1 V	8	6.6 V
2	11.7 V	9	0 V
3	6.5 V	10	11.4 V
4	11.7 V	11	1.7 V
5	3.5 V	12	0.7 V
6	1.3 V	13	1.5 V
7	2.1 V	14	0 V

IC101 (SVILA1230)

FM IF AMP. DISCRI			
1	2.7 V	10	5.8 V
2	2.7 V	11	11.2 V
3	2.7 V	12	4 V
4	0 V	13	0 V
6	5.6 V	14	0 V
7	5.8 V	15	4.9 V
8	5.8 V	16	0 V
9	5.8 V		
5	MUTING ON 1.4 V		
	MUTING OFF 0 V		

IC102 (SVIHA1156W)

FM MPX		
	STEREO	MONO
1	13.1 V	13.1 V
2	3 V	3 V
3	5.1 V	5.1 V
4	9.5 V	9.5 V
5	9.5 V	9.5 V
6	0.9 V	12.7 V
7	0 V	0 V
8	2.4 V	0.3 V
9	2.3 V	2.3 V
10	1.5 V	1.5 V
11	2.2 V	2.2 V
12	2.3 V	2.3 V
13	2.3 V	2.3 V
14	1.8 V	1.8 V

TR107 (2SC828)

SWITCHING		
	STEREO	MONO
E	0 V	0 V
C	2.4 V	0.3 V
B	0 V	0.6 V

TR1 (3SK40)

	FM RF
S	0 V
D	10 V
G1	0 V
G2	3.8 V

TR2 (2SC1674)

	FM MIX
E	1 V
C	11.5 V
B	1.7 V

TR3 (2SC1675)

	FM OSC
E	2.9 V
C	10.4 V
B	3.6 V

TR4 (2SC828)

	SWITCHING
E	0 V
C	0 V
B	0 V

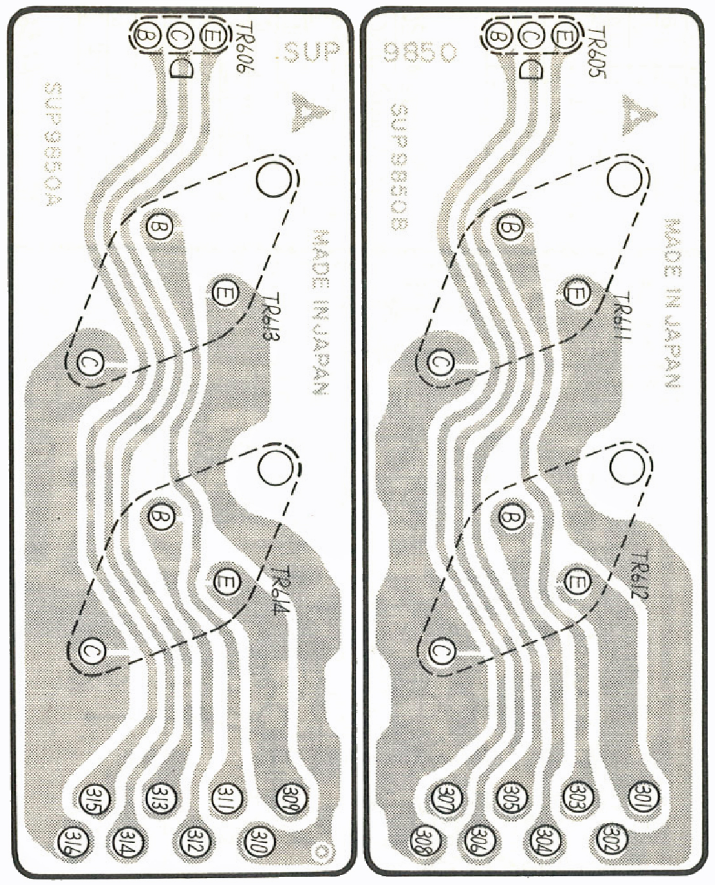
TR101 (2SC1675)

	FM IF
E	3.1 V
C	10.4 V
B	3.8 V

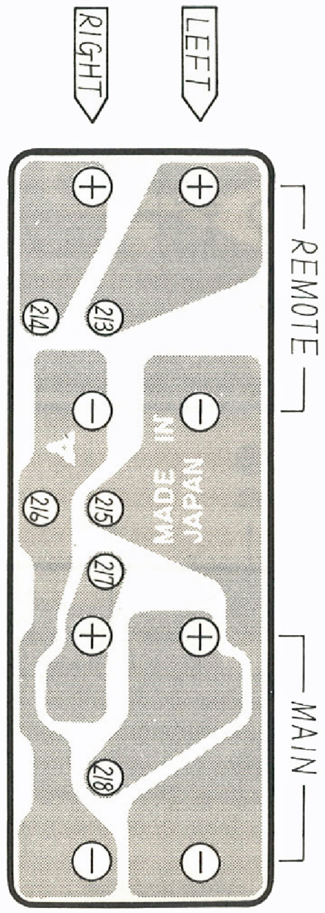
TR102 (2SC828)

MUT. SWITCH		
	OFF	ON
E	0 V	0 V
C	8.4 V	0.1 V
B	0 V	6 V

■ POWER TRANSISTOR CIRCUIT BOARD



■ SPEAKERS TERMINAL CIRCUIT BOARD



■ REPLACEMENT PARTS LIST

Important Safety Notice

Components identified by shaded area have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

NOTE: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		INTEGRATED CIRCUITS		
IC1	SVIHA1151	AM RF, IF Amplifier Mix, Osc & Det	1	
IC101	SVILA1230	FM IF Amplifier & Discriminator	1	
IC102	SVIHA1156W	FM MPX	1	
IC201, 202	SVITA7129P	Equalizer Amplifier	2	
		TRANSISTORS		
TR1	3SK40-M	FM RF Amplifier [FET]	1	
TR2	2SC1674-M	FM Mixer	1	
TR3, 101	2SC1675-L1	FM Oscillator & IF Amplifier	2	
TR4, 102, 106 107, 108, 501 502, 503, 504, 615, 616, 619, 701	**2SC1328-T**	Switching, Tone Amplifier, Ripple Filter & Speakers Protection (in ranks S or T).	13	
TR103, 104	2SA733-P1	AF Amplifier	2	
TR105	2SC1398-Q	Regulator, (in ranks Q or R)	1	
TR601, 602	2SA798A-G2	Differential Amplifier (in ranks F2 or G2)	2	
TR603, 604	2SC1628-O	Pre Drive Amplifier (in ranks O or Y)	2	
TR605, 606	**2SC828A-R**	Thermo Compensation	2	
TR607, 608	2SD381A-L9	Driver Amp } Use in pair ranks (L or M)	2	
TR609, 610	2SB536A-L9	Driver Amp }	2	
TR611, 613	2SD388A-Q	Power Amp } Use in pair ranks (Q or R)	2	○
TR612, 614	2SB541A-Q	Power Amp }	2	○
TR617, 618	**2SC1509F-Q**	Relay Driver (in ranks Q or R)	2	
TR620	**2SA902-F**	Speaker Protection Switching	1	
	Note: TR619 and TR620, Use only set for England [XE].			
		DIODES		
D101, 102	OA90	AGC	2	
D103, 104, 105, 106, 108, 110, 111	MA150	Muting Switching	7	
D107	SVDMZ414	14V Zener, Voltage Stabilizer	1	
D109	SVDMA26-2	Varistor	1	
D601	SVDMZ324	24V Zener, Voltage Stabilizer	1	
D602, 603, 702, 703	SVD10E1	Rectifier	4	
D701	SVD6B6CTA-2	Rectifier	1	
		COILS and TRANSFORMERS		
L1	SLAA4W1-3	Balun Coil	1	
L2	SLAA4N9	FM Antenna Coil	1	
L3	SLDA4N18	FM Detector Coil	1	
L4	ELQ5A77	Choke Coil	1	
L5	SLOA4N9	FM Oscillator Coil	1	
L6	RLO2M4P	AM Oscillator Coil	1	
L7	SLI2M401	AM IF Filter Coil	1	
L8	SLF2D27	AM Antenna Coil	1	

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
L101	SLQX180-1	Choke Coil	1		
L102	SLMA1Z3-K	Low Pass Filter	1		
T1	RLI2M201	AM IF Transformer	1		
T2	RLI2M202	AM IF Transformer	1		
T101	SLI4D513	FM IF Transformer	1		
T1001 [XE]	SLT5R7-W	Power Transformer, Set for [XE]	1		○
T1001 [X, XG, XGH, XSD, XSW]	SLT5R9-W	Power Transformer, Set for [X], [XG], [XGH], [XSD] & [XSW]	1		○

CERAMIC FILTERS

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
CF101, 102, 103	SVFE107MA8A	FM IF Circuit, Red. 10.7MHz	each 3		
	SVFE107MA8B	FM IF Circuit, Blue, 10.67MHz			
	SVFE107MA8C	FM IF Circuit, Orange, 10.73MHz			
	SVFE107MA8D	FM IF Circuit, Black, 10.64MHz			
	SVFE107MA8E	FM IF Circuit, White, 10.76MHz			
	(Use pair ranks as same as	CF101, 102, and CF103)			

THERMISTORS

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
TH601, 602	RRT251	Thermistor, Drive Amplifier Circuit	2		

POSISTOR

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
PH601 [XE]	SRP4BC60158	Posistor, Only set for England [XE]	1		

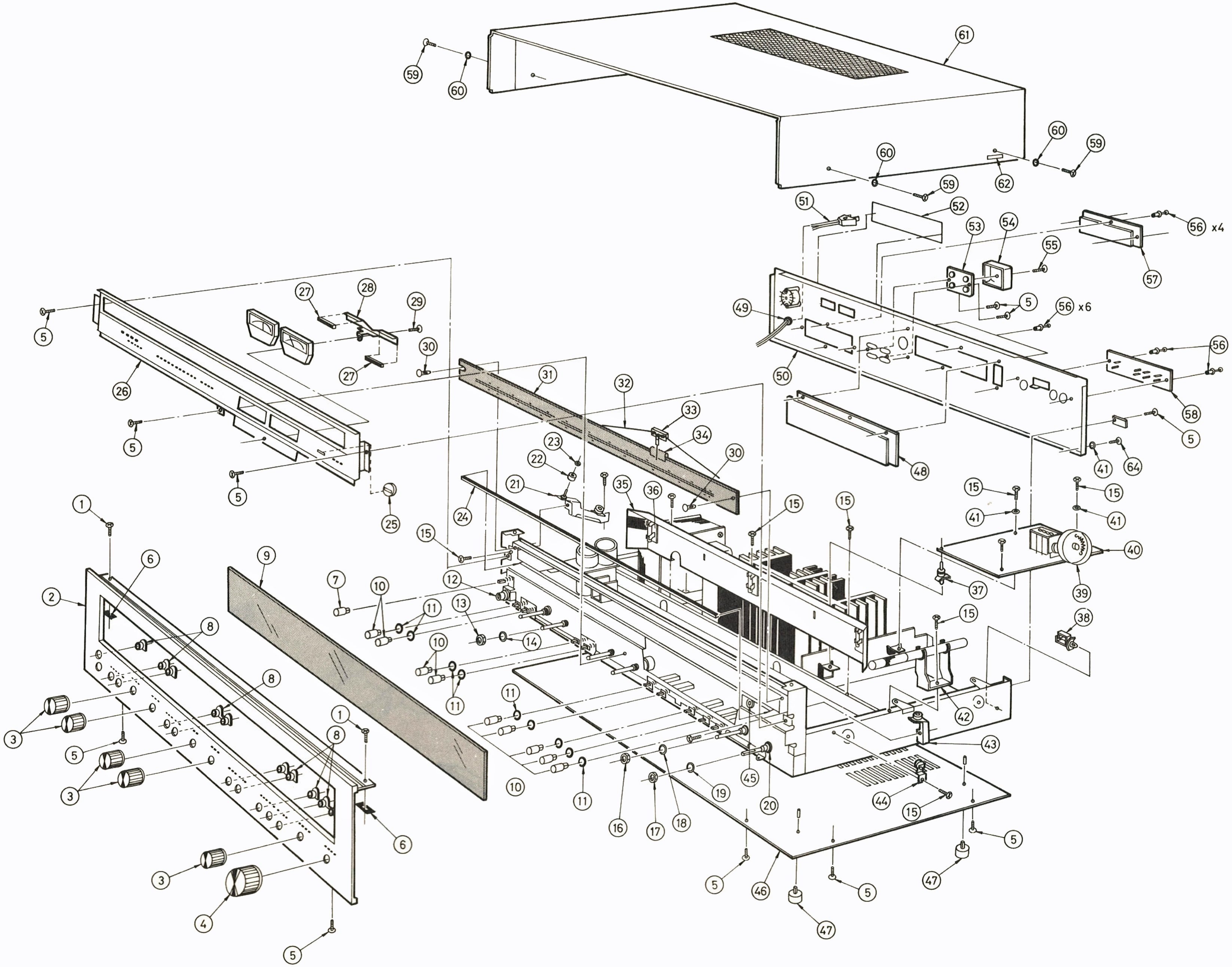
RESISTORS

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
R1	**ERD25TJ104**	100kΩ, 1/4W, ± 5% Carbon	1		
R2	**ERD25TJ470**	47Ω, 1/4W, ± 5% Carbon	1		
R3	**ERD25TJ151**	150Ω, 1/4W, ± 5% Carbon	1		
R4	**ERD25TJ473**	47kΩ, 1/4W, ± 5% Carbon	1		
R5	**ERD25TJ822**	8.2kΩ, 1/4W, ± 5%, Carbon	1		
R6	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1		
R7	**ERD25TJ331**	330Ω, 1/4W, ± 5%, Carbon	1		
R8	**ERD25TJ470**	47Ω, 1/4W, ± 5%, Carbon	1		
R9	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1		
R10	**ERD25TJ223**	22kΩ, 1/4W, ± 5%, Carbon	1		
R11	**ERD25TJ123**	12kΩ, 1/4W, ± 5%, Carobn	1		
R12	**ERD25TJ182**	1.8kΩ, 1/4W, ± 5%, Carbon	1		
R13	**ERD25TJ471**	470Ω, 1/4W, ± 5%, Carbon	1		
R14	**ERD25TJ682**	6.8kΩ, 1/4W, ± 5%, Carbon	1		
R15	**ERD25TJ331**	330Ω, 1/4W, ± 5%, Carbon	1		
R16	**ERD25TJ222**	2.2kΩ, 1/4W, ± 5%, Carbon	1		
R17	**ERD25TJ103**	10kΩ, 1/4W, ± 5%, Carbon	1		
R18	**ERD25TJ103**	10kΩ, 1/4W, ± 5%, Carbon	1		
R19	**ERD25TJ473**	47kΩ, 1/4W, ± 5%, Carbon	1		
R20	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1		
R21	**ERD25TJ221**	220Ω, 1/4W, ± 5%, Carbon	1		
R22	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1		
R101	**ERD25TJ151**	150Ω, 1/4W, ± 5%, Carbon	1		
R102	**ERD25TJ332**	3.3kΩ, 1/4W, ± 5%, Carbon	1		
R103	**ERD25TJ682**	6.8kΩ, 1/4W, ± 5%, Carbon	1		
R104	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1		
R105	**ERD25TJ471**	470Ω, 1/4W, ± 5%, Carbon	1		
R106	**ERD25TJ101**	100Ω, 1/4W, ± 5%, Carbon	1		
R107	**ERD25TJ103**	10kΩ, 1/4W, ± 5%, Carbon	1		
R108	**ERD25TJ152**	1.5kΩ, 1/4W, ± 5%, Carbon	1		
R109	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1		
R110	**ERD25TJ471**	470Ω, 1/4W, ± 5%, Carobn	1		
R111	**ERD25TJ823**	82kΩ, 1/4W, ± 5%, Carbon	1		
R112	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1		
R113	**ERD25TJ473**	47kΩ, 1/4W, ± 5%, Carbon	1		
R114	**ERD25TJ221**	220Ω, 1/4W, ± 5%, Carbon	1		
R115	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1		
R116	**ERD25TJ682**	6.8kΩ, 1/4W, ± 5%, Carbon	1		
R117	**ERD25TJ562**	5.6kΩ, 1/4W, ± 5%, Carbon	1		
R118	**ERD25TJ272**	2.7kΩ, 1/4W, ± 5%, Carbon	1		
R119	**ERD25TJ101**	100Ω, 1/4W, ± 5%, Carbon	1		
R120	**ERD25TJ222**	2.2kΩ, 1/4W, ± 5%, Carbon	1		
R121	**ERD25TJ473**	47kΩ, 1/4W, ± 5%, Carbon	1		
R122	**ERD25TJ823**	82kΩ, 1/4W, ± 5%, Carbon	1		
R123	**ERD25TJ153**	15kΩ, 1/4W, ± 5%, Carbon	1		
R124	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1		
R125	**ERD25TJ331**	330Ω, 1/4W, ± 5%, Carbon	1		
R126	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1		
R127	**ERD25TJ562**	5.6kΩ, 1/4W, ± 5%, Carbon	1		
R128	**ERD25TJ562**	5.6kΩ, 1/4W, ± 5%, Carbon	1		
R129	**ERD25TJ682**	6.8kΩ, 1/4W, ± 5%, Carbon	1		
R130	**ERD25TJ682**	6.8kΩ, 1/4W, ± 5%, Carbon	1		
R131	**ERD25TJ472**	4.7kΩ, 1/4W, ± 5%, Carbon	1		
R132	**ERD25TJ472**	4.7kΩ, 1/4W, ± 5%, Carbon	1		
R133	**ERD25TJ561**	560Ω, 1/4W, ± 5%, Carbon	1		
R134	**ERD25TJ561**	560Ω, 1/4W, ± 5%, Carbon	1		
R135	**ERD25TJ472**	4.7kΩ, 1/4W, ± 5%, Carbon	1		
R136	**ERD25TJ472**	4.7kΩ, 1/4W, ± 5%, Carbon	1		
R137	**ERD25TJ473**	47kΩ, 1/4W, ± 5%, Carbon	1		
R138	**ERD25TJ473**	47kΩ, 1/4W, ± 5%, Carbon	1		
R139	**ERD25TJ101**	100Ω, 1/4W, ± 5%, Carbon	1		
R141	ERD12FJ471	470Ω, 1/2W, ± 5%, Carbon	1		
R142	**ERG1ANJ331**	330Ω, 1W, ± 5%, Metallic	1		
R143	ERD12FJ471	470Ω, 1/2W, ± 5%, Carbon	1		
R144	**ERD25TJ151**	150Ω, 1/4W, ± 5%, Carbon	1		
R145	**ERD25TJ100**	10Ω, 1/4W, ± 5%, Carbon	1		
R146	**ERD25TJ332**	3.3kΩ, 1/4W, ± 5%, Carbon	1		
R147	**ERD25TJ100**	10Ω, 1/4W, ± 5%, Carbon	1		
R148	**ERD25TJ473**	47kΩ, 1/4W, ± 5%, Carbon	1		
R149	**ERD25TJ153**	15kΩ, 1/4W, ± 5%, Carbon	1		
R150	**ERD25TJ473**	47kΩ, 1/4W, ± 5%, Carbon	1		
R151	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1		
R152	**ERD25TJ123**	12kΩ, 1/4W, ± 5%, Carbon	1		
R153	**ERD25TJ273**	27kΩ, 1/4W, ± 5%, Carobn	1		
R154	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1		
R201	ERD12TSJ274	270kΩ, 1/2W, ± 5%, Carbon	1		
R202	ERD12TSJ274	270kΩ, 1/2W, ± 5%, Carbon	1		
R203	**ERD25TJ331**	330Ω, 1/4W, ± 5%, Carbon	1		
R204	**ERD25TJ331**	330Ω, 1/4W, ± 5%, Carbon	1		
R205	ERD12TSJ334	330kΩ, 1/2W, ± 5%, Carbon	1		
R206	ERD12TSJ334	330kΩ, 1/2W, ± 5%, Carbon	1		
R207	**ERD25TJ103**	10kΩ, 1/4W, ± 5%, Carbon	1		
R208	**ERD25TJ103**	10kΩ, 1/4W, ± 5%, Carbon	1		
R209	ERO50CKF1743	174kΩ, 1/2W, ± 1%, Metallic	1		○
R210	ERO50CKF1743	174kΩ, 1/2W, ± 1%, Metallic	1		○
R213	ERO50CKF1502	15kΩ, 1/2W, ± 1%, Metallic	1		○
R214	ERO50CKF1502	15kΩ, 1/2W, ± 1%, Metallic	1		○

Ref. No	Part No.	Part Name & Description	Per Set	Remarks
R215	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1	
R216	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1	
R217	ERD12TSJ563	56kΩ, 1/2W, ± 5%, Carbon	1	
R218	ERD12TSJ563	56kΩ, 1/2W, ± 5%, Carbon	1	
R219	**ERD25TJ101**	100Ω, 1/4W, ± 5%, Carbon	1	
R220	**ERD25TJ101**	100Ω, 1/4W, ± 5%, Carbon	1	
R221	**ERD25TJ331**	330Ω, 1/4W, ± 5%, Carbon	1	
R222	**ERD25TJ331**	330Ω, 1/4W, ± 5%, Carbon	1	
R223	**ERD14FJ102**	1kΩ, 1/4W, ± 5%, Carbon	1	
R501	**ERD25TJ394**	390kΩ, 1/4W, ± 5%, Carbon	1	
R502	**ERD25TJ394**	390kΩ, 1/4W, ± 5%, Carbon	1	
R503	**ERD25TJ331**	330Ω, 1/4W, ± 5%, Carbon	1	
R504	**ERD25TJ331**	330Ω, 1/4W, ± 5%, Carbon	1	
R505	**ERD25TJ393**	39kΩ, 1/4W, ± 5%, Carbon	1	
R506	**ERD25TJ393**	39kΩ, 1/4W, ± 5%, Carbon	1	
R507	**ERD25TJ392**	3.9kΩ, 1/4W, ± 5%, Carbon	1	
R508	**ERD25TJ392**	3.9kΩ, 1/4W, ± 5%, Carbon	1	
R509	**ERD25TJ823**	82kΩ, 1/4W, ± 5%, Carbon	1	
R510	**ERD25TJ823**	82kΩ, 1/4W, ± 5%, Carbon	1	
R511	**ERD25TJ332**	3.3kΩ, 1/4W, ± 5%, Carbon	1	
R512	**ERD25TJ332**	3.3kΩ, 1/4W ± 5%, Carbon	1	
R513	**ERD25TJ391**	390Ω, 1/4W, ± 5%, Carbon	1	
R514	**ERD25TJ391**	390Ω, 1/4W, ± 5%, Carbon	1	
R515	**ERD25TJ103**	10kΩ, 1/4W, ± 5%, Carbon	1	
R516	**ERD25TJ103**	10kΩ, 1/4W, ± 5%, Carbon	1	
R517	**ERD25TJ153**	15kΩ, 1/4W, ± 5%, Carbon	1	
R518	**ERD25TJ153**	15kΩ, 1/4W, ± 5%, Carbon	1	
R519	**ERD25TJ122**	1.2kΩ, 1/4W, ± 5%, Carbon	1	
R520	**ERD25TJ122**	1.2kΩ, 1/4W, ± 5%, Carbon	1	
R521	**ERD25TJ103**	10kΩ, 1/4W, ± 5%, Carbon	1	
R522	**ERD25TJ103**	10kΩ, 1/4W, ± 5%, Carbon	1	
R523	**ERD25TJ394**	390kΩ, 1/4W, ± 5%, Carbon	1	
R524	**ERD25TJ394**	390kΩ, 1/4W, ± 5%, Carbon	1	
R525	**ERD25TJ563**	56kΩ, 1/4W, ± 5%, Carbon	1	
R526	**ERD25TJ563**	56kΩ, 1/4W, ± 5%, Carbon	1	
R527	**ERD25TJ822**	8.2kΩ, 1/4W, ± 5%, Carbon	1	
R528	**ERD25TJ822**	8.2kΩ, 1/4W, ± 5%, Carbon	1	
R529	**ERD25TJ272**	2.7kΩ, 1/4W, ± 5%, Carbon	1	
R530	**ERD25TJ272**	2.7kΩ, 1/4W, ± 5%, Carbon	1	
R531	**ERD25TJ683**	68kΩ, 1/4W, ± 5%, Carbon	1	
R532	**ERD25TJ683**	68kΩ, 1/4W, ± 5%, Carbon	1	
R533	**ERD25TJ272**	2.7kΩ, 1/4W, ± 5%, Carbon	1	
R534	**ERD25TJ272**	2.7kΩ, 1/4W, ± 5%, Carbon	1	
R535	**ERD25TJ562**	5.6kΩ, 1/4W, ± 5%, Carbon	1	
R536	**ERD25TJ562**	5.6kΩ, 1/4W, ± 5%, Carbon	1	
R537	**ERD14FJ102**	1kΩ, 1/4W, ± 5%, Carbon	1	
R601	**ERD25TJ824**	820kΩ, 1/4W, ± 5%, Carbon	1	
R602	**ERD25TJ824**	820kΩ, 1/4W, ± 5%, Carbon	1	
R603	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1	
R604	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1	
R605	**ERD25TJ563**	56kΩ, 1/4W, ± 5%, Carbon	1	
R606	**ERD25TJ563**	56kΩ, 1/4W, ± 5%, Carbon	1	
R607	**ERD25TJ153**	15kΩ, 1/4W, ± 5%, Carbon	1	
R608	**ERD25TJ153**	15kΩ, 1/4W, ± 5%, Carbon	1	
R609	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1	
R610	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1	
R611	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1	
R612	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1	
R613	**ERD25TJ182**	1.8kΩ, 1/4W, ± 5%, Carbon	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R614	**ERD25TJ182**	1.8kΩ, 1/4W, ± 5%, Carbon	1	
R615	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1	
R616	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1	
R617	**ERG1ANJ152**	1.5kΩ, 1W, ± 5%, Metallic	1	
R618	**ERG1ANJ152**	1.5kΩ, 1W, ± 5%, Metallic	1	
R619	ERD12FJ472	4.7kΩ, 1/2W, ± 5%, Carbon	1	
R620	ERD12FJ472	4.7kΩ, 1/2W, ± 5%, Carbon	1	
R621	**ERD25TJ471**	470Ω, 1/4W, ± 5%, Carbon	1	
R622	**ERD25TJ471**	470Ω, 1/4W, ± 5%, Carbon	1	
R623	**ERD25TJ152**	1.5kΩ, 1/4W, ± 5%, Carbon	1	
R624	**ERD25TJ152**	1.5kΩ, 1/4W, ± 5%, Carbon	1	
R625	**ERD14FJ681**	680Ω, 1/4W, ± 5%, Carbon	1	
R626	**ERD14FJ681**	680Ω, 1/4W, ± 5%, Carbon	1	
R627	**ERD14FJ100**	10Ω, 1/4W, ± 5%, Carbon	1	
R628	**ERD14FJ100**	10Ω, 1/4W, ± 5%, Carbon	1	
R629	**ERD14FJ271**	270Ω, 1/4W, ± 5%, Carbon	1	
R630	**ERD14FJ271**	270Ω, 1/4W, ± 5%, Carbon	1	
R631	**ERD14FJ470**	47Ω, 1/4W, ± 5%, Carbon	1	
R632	**ERD14FJ470**	47Ω, 1/4W, ± 5%, Carbon	1	
R633	**ERD14FJ330**	33Ω, 1/4W, ± 5%, Carbon	1	
R634	**ERD14FJ330**	33Ω, 1/4W, ± 5%, Carbon	1	
R635	**ERD14FJ330**	33Ω, 1/4W, ± 5%, Carbon	1	
R636	**ERD14FJ330**	33Ω, 1/4W, ± 5%, Carbon	1	
R639	ERF5AKR47	0.47Ω, 5W, ±10%, Non-Flammable	1	
R640	ERF5AKR47	0.47Ω, 5W, ±10%, Non-Flammable	1	
R641	ERF5AKR47	0.47Ω, 5W, ±10%, Non-Flammable	1	
R642	ERF5AKR47	0.47Ω, 5W, ±10%, Non-Flammable	1	
R643	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1	
R644	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1	
R645	**ERD25TJ563**	56kΩ, 1/4W, ± 5%, Carbon	1	
R646	**ERD25TJ563**	56kΩ, 1/4W, ± 5%, Carbon	1	
R647	**ERG2ANJ331**	330Ω, 2W, ± 5%, Metallic	1	
R648	**ERG2ANJ331**	330Ω, 2W, ± 5%, Metallic	1	
R649	**ERX2ANJ100**	10Ω, 2W, ± 5%, Metallic	1	
R650	**ERX2ANJ100**	10Ω, 2W, ± 5%, Metallic	1	
R651	ERD12FJ272	2.7kΩ, 1/2W, ± 5%, Carbon	1	
R652	**ERG2ANJ821**	820Ω, 2W, ± 5%, Metallic	1	
R653	**ERD25TJ153**	15kΩ, 1/4W, ± 5%, Carbon	1	
R654	**ERD25TJ822**	8.2kΩ, 1/4W, ± 5%, Carbon	1	
R655	**ERD25TJ393**	39kΩ, 1/4W, ± 5%, Carbon	1	
R656	**ERD25TJ333**	33kΩ, 1/4W, ± 5%, Carbon	1	
R657	**ERD25TJ564**	560kΩ, 1/4W, ± 5%, Carbon	1	
R658	**ERD25TJ333**	33kΩ, 1/4W, ± 5%, Carbon	1	
R659	**ERD25TJ472**	4.7kΩ, 1/4W, ± 5%, Carbon	1	
	Resistors, only Set for England [XE]			
R660 [XE]	**ERD25TJ273**	27kΩ, 1/4W, ± 5%, Carbon	1	
R661 [XE]	**ERD25TJ123**	12kΩ, 1/4W, ± 5%, Carbon	1	
R662 [XE]	**ERD25TJ563**	56kΩ, 1/4W, ± 5%, Carbon	1	
R663 [XE]	**ERD25TJ824**	820kΩ, 1/4W, ± 5%, Carbon	1	
R664 [XE]	**ERD25TJ124**	120kΩ, 1/4W, ± 5%, Carbon	1	
R665 [XE]	**ERD25TJ124**	120kΩ, 1/4W, ± 5%, Carbon	1	
R666 [XE]	**ERD25TJ563**	56kΩ, 1/4W, ± 5%, Carbon	1	

■ CABINET & CHASSIS PARTS



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Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R703	**ERG3ANJ181**	180Ω, 3W, ± 5%, Metallic	1	
R704	**ERD14FJ102**	1kΩ, 1/4W, ± 5%, Carbon	1	
R705	**ERD25TJ153**	15kΩ, 1/4W, ± 5%, Carbon	1	
R1003	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1	
R1004	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1	
R1005	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1	
R1006	**ERD25TJ102**	1kΩ, 1/4W, ± 5%, Carbon	1	
R1007	**ERD25TJ123**	12kΩ, 1/4W, ± 5%, Carbon	1	
R1008	**ERD25TJ123**	12kΩ, 1/4W, ± 5%, Carbon	1	
R1009	**ERD25TJ824**	820kΩ, 1/4W, ± 5%, Carbon	1	
R1010	**ERD25TJ824**	820kΩ, 1/4W, ± 5%, Carbon	1	
R1011	**ERD25TJ105**	1MΩ, 1/4W, ± 5%, Carbon	1	
R1012	**ERD25TJ105**	1MΩ, 1/4W, ± 5%, Carbon	1	
R1013	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1	
R1014	**ERD25TJ104**	100kΩ, 1/4W, ± 5%, Carbon	1	
R1015	**ERD25TJ474**	470kΩ, 1/4W, ± 5%, Carbon	1	
R1016	**ERD25TJ474**	470kΩ, 1/4W, ± 5%, Carbon	1	
R1017	**ERD25TJ472**	4.7kΩ, 1/4W, ± 5%, Carbon	1	
R1018	**ERD25TJ472**	4.7kΩ, 1/4W, ± 5%, Carbon	1	
R1019	**ERD25TJ472**	4.7kΩ, 1/4W, ± 5%, Carbon	1	
R1020	**ERD25TJ472**	4.7kΩ, 1/4W, ± 5%, Carbon	1	

VARIABLE RESISTORS

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
VR101	EVLS0AA00B55	500kΩ (B), Muting Level Adjustment	1	
VR102	EVLS3AA00B14	10kΩ (B), PLL VCO Adjustment	1	
VR103	EVLS3AA00B24	20kΩ (B) Separation Adjustment	1	
VR104	EVLS3AA00B24	20kΩ (B), FM Signal Meter Adjustment	1	
VR501, 502	EWF2QAF30B15	100kΩ (B), Bass & Treble Control	2	
VR601, 602	EVLS3AA00B52	500Ω (B), Main Amp Icq Adjustment	2	
VR1001	EWF5MA037BF5	250kΩ (B), Volume Control	1	○
VR1002	EVE7DA088G25	200kΩ (G), Balance Control	1	○

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C1	ECCD1H120KC	12pF, 50WV, ±10%, Ceramic	1	
C2	ECCD1H0101CC	1pF, 50WV, ±0.25pF, Ceramic	1	
C3	ECCD1H180KR	18pF, 50WV, ±10%, Ceramic	1	
C4	ECKD1H102MDA	0.001μF, 50WV, ±20%, Ceramic	1	
C5	ECCD1H100KC	10pF, 50WV, ±10%, Ceramic	1	
C6	ECCD1H181K	180pF, 50WV, ±10%, Ceramic	1	
C7	ECKD1H102PF	0.001μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C9	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C10	ECKD1H102PF	0.001μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C11	ECCD1H180KC	18pF, 50WV, ±10%, Ceramic	1	
C12	ECCD1H390KC	39pF, 50WV, ±10%, Ceramic	1	
C13	ECCD1H100KC	10pF, 50WV, ±10%, Ceramic	1	
C14	ECCD1H220KR	22pF, 50WV, ±10%, Ceramic	1	
C15	ECCD1H010CC	1pF, 50WV, ±0.25pF, Ceramic	1	
C16	ECCD1H070DC	7pF, 50WV, ±0.5pF, Ceramic	1	
C17	ECCD1H180KC	18pF, 50WV, ±10%, Ceramic	1	
C18	ECQS1361JZ	360pF, 125WV, ±5%, Styrol	1	
C19	ECKD1H103MD	0.01μF, 50WV, ±20%, Ceramic	1	
C20	ECKD1H103MD	0.01μF, 50WV, ±20%, Ceramic	1	
C21	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C22	**ECEA16V10V**	10μF, 16WV, Electrolytic	1	
C23	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C24	**ECEA16V10V**	10μF, 16WV, Electrolytic	1	
C25	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Cermaic	1	
C26	ECKD1H102PF	0.001μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C27	**ECEA50V3R3V**	3.3μF, 50WV, Electrolytic	1	
C28	**ECEA50V3R3V**	3.3μF, 50WV, Electrolytic	1	
C29	**ECEA50V1V**	1μF, 50WV, Electrolytic	1	
C30	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	1	
C31	ECQM05473KZ	0.047μF, 50WV, ±10%, Polyester	1	
C101	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C102	ECCD1H180KC	18pF 50WV, ±10% Ceramic	1	
C103	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C104	ECKD1H102PF	0.001μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C105	ECKD1H223PF	0.022μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C106	**ECEA16V10V**	10μF, 16WV, Electrolytic	1	
C107	**ECEA50V1V**	1μF, 50WV, Electrolytic	1	
C108	ECKD1H103MD	0.01μF, 50WV, ±20% Ceramic	1	
C109	ECKD1H103MD	0.01μF, 50WV, ±20%, Ceramic	1	
C110	**ECEA50ZR1**	0.1μF, 50WV, Electrolytic	1	
C111	ECCD1H101K	100pF, 50WV, ±10%, Ceramic	1	
C112	**ECEA50VR47V**	0.47μF, 50WV, Electrolytic	1	
C113	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C114	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C115	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C116	ECKD1H102PF	0.001μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C117	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C118	**ECEA6V220V**	220μF, 6.3WV, Electrolytic	1	
C119	**ECEA35V4R7V**	4.7μF, 35WV, Electrolytic	1	
C120	ECQM05473KZ	0.047μF, 50WV, ±10%, Polyester	1	
C121	ECQS1471JZ-K	470pF, 125WV, ±5%, Styrol	1	
C122	**ECEA50ZR22**	0.22μF, 50WV, Electrolytic	1	
C123	**ECEA50VR47V**	0.47μF, 50WV, Electrolytic	1	
C124	ECKD1H102PF	0.001μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C125	ECEA50MR22R	0.22μF, 50WV, Electrolytic	1	
C126	**ECEA35V4R7V**	4.7μF, 35WV, Electrolytic	1	
C127	ECQM05123JZ	0.012μF, 50WV, ±5%, Polyester	1	
C128	ECQM05123JZ	0.012μF, 50WV, ±5%, Polyester	1	
C129	**ECEA50ZR33**	0.33μF, 50WV, Electrolytic	1	
C130	**ECEA50ZR33**	0.33μF, 50WV, Electrolytic	1	
C131	**ECEA16V47V**	47μF, 16WV, Electrolytic	1	
C133	**ECEA16V220V**	220μF, 16WV, Electrolytic	1	
C134	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C135	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C136	**ECEA16V47V**	47μF, 16WV, Electrolytic	1	
C137	**ECEA50V3R3V**	3.3μF, 50WV, Electrolytic	1	
C138	**ECEA50VR47V**	0.47μF, 50WV, Electrolytic	1	
C139	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	1	
C140	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	1	
C141	ECCD1H010CC	1pF, 50WV, ±0.25pF, Ceramic	1	
C142	ECKD1H223PF	0.022μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1	
C201	ECCD1H151K	150pF, 50WV, ±10%, Ceramic	1	
C202	ECCD1H151K	150pF, 50WV, ±10%, Ceramic	1	
C203	ECEA50M3R3R	3.3μF, 50WV, Electrolytic	1	
C204	ECEA50M3R3R	3.3μF, 50WV, Electrolytic	1	
C205	ECCD1H680K	68pF, 50WV, ±10%, Ceramic	1	
C206	ECCD1H680K	68pF, 50WV, ±10%, Ceramic	1	
C207	ECKD2H681KB	680pF, 500WV, ±10%, Cermaic	1	
C208	ECKD2H681KB	680pF, 500WV, ±10%, Ceramic	1	
C209	**ECEA6V330V**	330μF, 6.3WV, Electrolytic	1	
C210	**ECEA6V330V**	330μF, 6.3WV, Electrolytic	1	
C211	ECQF1183GZN	0.018μF, 125WV, ±2%, Polypropylene	1	○

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
C212	ECQF1183GZN	0.018μF, 125WV, ±2%, Polypropylene	1		○
C213	ECQF1472GZN	0.0047μF, 125WV, ±2%, Polypropylene	1		○
C214	ECQF1472GZN	0.0047μF, 125WV, ±2%, Polypropylene	1		○
C215	ECEA50M1R	1μF, 50WV, Electrolytic	1		
C216	ECEA50M1R	1μF, 50WV, Electrolytic	1		
C217	**ECEA50V220V**	220μF, 50WV, Electrolytic	1		
C219	ECKD2H391KB	390pF, 500WV, ±10%, Ceramic	1		
C220	ECKD2H391KB	390pF, 500WV, ±10%, Ceramic	1		
C501	ECEA50MR68R	0.68μF, 50WV, Electrolytic	1		
C502	ECEA50MR68R	0.68μF, 50WV, Electrolytic	1		
C503	ECKD2H331KB	330pF, 500WV, ±10%, Ceramic	1		
C504	ECKD2H331KB	330pF, 500WV, ±10%, Ceramic	1		
C505	ECEA50M3R3R	3.3μF, 50WV, Electrolytic	1		
C506	ECEA50M3R3R	3.3μF, 50WV, Electrolytic	1		
C507	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	1		
C508	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	1		
C509	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	1		
C510	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	1		
C511	ECQM05222KZ	0.0022μF, 50WV, ±10%, Polyester	1		
C512	ECQM05222KZ	0.0022μF, 50WV, ±10%, Polyester	1		
C513	ECEA50MR68R	0.68μF, 50WV, Electrolytic	1		
C514	ECEA50MR68R	0.68μF, 50WV, Electrolytic	1		
C515	ECCD1H470K	47pF, 50WV, ±10%, Ceramic	1		
C516	ECCD1H470K	47pF, 50WV, ±10%, Ceramic	1		
C517	**ECEA16V47V**	47μF, 16WV, Electrolytic	1		
C518	**ECEA16V47V**	47μF, 16WV, Electrolytic	1		
C519	ECEA50M1R	1μF, 50WV, Electrolytic	1		
C520	ECEA50M1R	1μF, 50WV, Electrolytic	1		
C521	**ECEA35V220V**	220μF, 35WV, Electrolytic	1		
C601	ECEA50M1R	1μF, 50WV, Electrolytic	1		
C602	ECEA50M1R	1μF, 50WV, Electrolytic	1		
C603	**ECEA16V47V**	47μF, 16WV, Electrolytic	1		
C604	**ECEA16V47V**	47μF, 16WV, Electrolytic	1		
C607	ECCD2H270K	27pF, 500WV, ±10%, Ceramic	1		
C608	ECCD2H270K	27pF 500WV, ±10%, Ceramic	1		
C609	ECKD2H101KB	100pF, 500WV, ±10%, Ceramic	1		
C610	ECKD2H101KB	100pF, 500WV, ±10%, Ceramic	1		
C611	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1		
C612	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1		
C617	ECCD1H010C	1pF, 50WV, ±0.25pF, Ceramic	1		
C618	ECCD1H010C	1pF, 50WV, ±0.25pF, Ceramic	1		
C619	**ECEA50V100V**	100μF, 50WV, Electrolytic	1		
C620	**ECEA50V100V**	100μF, 50WV, Electrolytic	1		
C621	**ECEA63V100V**	100μF, 63WV, Electrolytic	1		
C622	**ECEA63V100V**	100μF, 63WV, Electrolytic	1		
C623	**ECEA63V100V**	100μF, 63WV, Electrolytic	1		
C624	**ECEA63V100V**	100μF, 63WV, Electrolytic	1		
C625	**ECEA25V33V**	33μF, 25WV, Eelctrolytic	1		
C626	**ECEA16N220V**	220μF, 16WV, Non-Polar Electrolytic	1		
C627	**ECEA16V47V**	47μF, 16WV, Electrolytic	1		
C628	**ECEA50Z2R2**	2.2μF, 50WV, Electrolytic	1		
C629	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1		
C631	ECQM05473KZ	0.047μF, 50WV, ±10%, Polyester	1		
C632	ECQM05473KZ	0.047μF, 50WV, ±10%, Polyester	1		
C633	**ECEA63V100V**	100μF, 63WV, Electrolytic	1		
C635	**ECEA63V100V**	100μF, 63WV, Electrolytic	1		
C637	ECCD2H150D	15pF, 500WV, ±0.5pF, Ceramic	1		
C638	ECCD2H150D	15pF, 500WV, ±0.5pF, Ceramic	1		
C649	ECCD2H101K	100pF, 500WV, ±10%, Ceramic	1		
C650	ECCD2H101K	100pF, 500WV, ±10%, Ceramic	1		
C691	ECKD1H102MD	0.001μF, 50WV, ±20%, Ceramic	1		
C692	ECKD1H102MD	0.001μF, 50WV, ±20%, Ceramic (C691 and 692, Except Set for England)	1		
C693 [XE]	**ECEA50V3R3V**	3.3μF, 50WV, Electrolytic	1		
C703	ECET63R153Y	15000μF, 63WV, Electrolytic	1		○
C704	ECET63R153Y	15000μF, 63WV, Electrolytic	1		○
C707	ECKD2H103PF	0.01μF, 500WV, $^{+100\%}_{-0\%}$ Ceramic	1		
C708	**ECEA50V470V**	470μF, 50WV, Electrolytic	1		
C709	ECKD2H103PF	0.01μF, 500WV, $^{+100\%}_{-0\%}$ Ceramic	1		
C710	**ECEA50V220V**	220μF, 50WV, Electrolytic	1		
C711	**ECEA35V100V**	100μF, 35WV, Electrolytic	1		
C712	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1		
C713	ECKD1H103PF	0.01μF, 50WV, $^{+100\%}_{-0\%}$ Ceramic	1		
C714	**ECEA50V47V**	47μF, 50WV, Electrolytic	1		
C715	**ECEA35V470V**	470μF, 35WV, Electrolytic	1		
C1001	ECQM05273KZ	0.027μF, 50WV, ±10%, Polyester	1		
C1002	ECQM05273KZ	0.027μF, 50WV, ±10%, Polyester	1		
C1003	ECQM05273KZ	0.027μF, 50WV, ±10%, Polyester	1		
C1004	ECQM05273KZ	0.027μF, 50WV, ±10%, Polyester	1		
C1005	ECQM05392KZ	0.0039μF, 50WV, ±10%, Polyester	1		
C1006	ECQM05392KZ	0.0039μF, 50WV, ±10%, Polyester	1		
C1007	**ECEA50V1V**	1μF, 50WV, Electrolytic	1		
		VARIABLE CAPACITOR			
CV1, 2, 3, 4, 5 (CT1, 2, 3, 4, 5)	ECV5MD34X67G	Tuning Gang, FM & AM (with Trimmer)	1		
		COMPONENT COMBINATIONS			
Z701, 702	RXAF103P22HD	0.01μF (X2), Hum Cancel	2		
		LAMPS			
PL1	XAMP38S150A	Lamp, Stereo Indicator (6.3V 40mA)	1		
PL2, 3, 4	XAMR54T	Lamp, Dial & Meter (12.6V, 0.38A)	3		
		FUSES			
F601, 602	XBA2C40SS0	4A Fuse, Speaker Circuit Protection	2		
F701 [X, XG, XGH, XSD, XSW]	XBA2C40TR0	4A. T Fuse, Except Set for [XE]	1		
F702, 704	XBA2C20TR0	2A. T Fuse, Power Source	2		
F703	XBA2C10TR0	1A. T Fuse, Power Source	1		
		SWITCHES			
S1001	SSR33	Selector Switch	1		
S1002 ~ S1004 S1006, 1007	SSH509S	Push Switches (Tape 1, 2, Mode, Muting & Loudness)	1		○
S1008, 1009	SSH221S	Push Switches (High & Low Filters)	1		
S1010	ESB7075	Power Switch	1		
S1011, 1012	SSH223S	Speaker Switch, Main & Remote	1		

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
S1013 [X, XG, XGH, XSD, XSW]	SSR53S	Voltage Selector Switch, Except Set for England [XE]	1	
S1013 [XE]	SSR53-1S	Voltage Selector Switch, Only Set for [XE]	1	

RELAY

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
RLY601	SSY13	Relay, Speakers Protection	1	

METERS

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
	SSM77	Meter, Signal	1	
	SSM79	Meter, Tuning	1	

CABINET and CHASSIS PARTS

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
1	XTS3+8CFZ	Screw, Front Panel M'tg	2	
2	SGW7371	Panel, Front	1	○
3	SBN583	Knob, Tone, Volume, Balance, Selector	5	
4	SBN585-2	Knob, Tuning	1	○
5	XTB3+8BFZ	Screw, Chassis M'tg	23	
6	SHP641	Spacer, Front Panel	2	
7	SBC147	Button, Power Push Switch	1	
8	SGX6455	Sleeve, Push Switch Buttons	5	
9	SGU13	Glass Plate, Front Panel	1	
10	SBC149	Button, Push Switches	9	
11	SHG1339	Rubber Bushing, Push Switch Buttons	9	
12	XCJ6N11B-A	Jack, Headphones	1	
13	XNS8	Nut, Tone, Balance & Volume Control	4	
14	XWV8	Spring Washer, Tone, Balance & Volume	4	
15	XTV3+8C	Screw, Chassis M'tg	11	
16	XNS7	Nut, Selector Switch M'tg	1	
17	XNS9	Nut, Tuning Contorl M'tg	1	
18	XWV7	Spring Washer, Selector Switch	1	
19	XWV9	Spring Washer, Tuning Contorl	1	
20	SDT8007-1	Shaft, Tuning Control Ass'y	1	
	SDX751S	Flywheel, Tuning	1	
	XXAS3K5S	Screw, Flywheel M'tg	2	
21	SXE727	Shaft, Dial Cord Ass'y	1	
22	RDR20	Pulley, Dial Cord	4	
23	RNW150-2	Washer, Pulley Lock	4	
24	SUM7	Bracket, Dial Scale	1	
25	SGL51	Orange Filter, Stereo Indicator	1	
26	SDH351-1	Plate, Dial Light	1	○
27	RHG109	Rubber Cushion, Meter	2	
28	SMMA10-2	Bracket, Meter	1	
29	XTV3+6C	Screw, Meter Bracket M'tg	1	
30	SHRA916-1	Lock Pin, Dial Scale	2	
31	SKD2570	Scale, Dial	1	
32	SDZ6-1	Cord, Dial, 91¼" (230cm)	1 roll	
33	SDPA8	Pointer, Dial	1	
34	SHPA4	Paper, Pointer Slide	1	
35	SMP245	Reflection Board, Dial Light	1	
36	SJF109-2	Holder, Dial Light	3	
	XRP3X5	Rivet, Dial Light Holder M'tg	3	
37	SHRA2	Spacer, FM/AM Tuner P.C.B.	1	
38	SHRA307	Clamp, Lead Wire	4	
39	SDD47-1	Drum, Dial Cord	1	
40	SDSA4121	Spring, Dial Cord	1	
41	XWC3B	Toothed Ring, P.C.B. M'tg	3	
42	SMA209	Bracket, AM Antenna Coil	1	
43	SXE715	Shaft, Dial Cord Ass'y	1	
44	SXE713	Shaft, Dial Cord Ass'y	1	
45	SHGA204	Rubber Bracket, Stereo Indicator	1	
46	SKU5750	Bottom Board	1	
47	SKL145	Foot, Set (with Lock Pin)	4	
48	SJF3015	Terminal, Input & Tape Deck	1	
	SJS6501	Socket, Tape Deck Connector (DIN)	1	
49 [XE]	SHR129	Bushing, AC Cord, Set for [XE]	1	
49 [X, XG, XGH, XSD, XSW]	SHR127	Bushing, AC Cord, Set for [X], [XG], [XGH], [XSW] & [XSD]	1	
50 [XE]	SGP330-2HE	Rear Panel, Set for [XE] (with Name plate SGT12511)	1	○
50 [X, XG, XGH]	SGP330-2H	Rear Panel, Set for [X], [XG] & [XGH]	1	○
50 [XSD, XSW]	SGP330-2HD	Rear Panel, Set for [XSD] & [XSW] (with Name Plate SGT12510)	1	○
51 [XE]	SJA99	AC Cord, Set for [XE] (Nothing AC Plug)	1	
51 [X, XG]	SJA97	AC Cord, Set for [X] & [XG]	1	
51 [XGH, XSD]	SJA81	AC Cord, Set for [XGH] & [XSD]	1	
51 [XSW]	**SJA68**	AC Cord, Set for [XSW]	1	
52	SUE3	Cover, Hole	1	
53	SJF205	Holder, Circuit Protection Fuse	1	
54	SJFA5202-1	Cover, Fuse Holder	1	
55	XSN26+12	Screw, Fuse Cover M'tg	1	
56	SHR401-1	Lock Pin, Terminal M'tg	12	
57	SJF4803-1	Terminal, Speakers	1	
58	SJFA4402	Terminal, Antenna	1	
59	XTB4+12FFZ	Screw, Cabinet M'tg	4	
60	XWG5FZ	Washer, Cabinet Screw	4	
61 [XE]	SKA8590	Cabinet, Brown Wood, Set for [XE]	1	○
61 [X]	SKA8510	Cabinet, Brown Wood, Set for [X]	1	
61 [XG, XGH, XSD, XSW]	SKA8511	Cabinet, Black Wood, Set for [XG], [XGH], [XSD] & [XSW]	1	
62	SQXA4112	Caution Lable, Cabinet Screw	1	
64	XTW3+8EFZ	Screw, Rear Panel M'tg	1	

ACCESSORIES

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
A1	SSA251	Cord, 75Ω FM Antenna	1	
A2	XBA2C40SS0	4A Fuse, Speaker Circuit Protection	2	
A3	RJP5	Pin Plug	4	
A4 [X]	SJP5213	AC Plug, Only Set for [X]	1	
A5 [X]	SJP5215	AC Plug, Only Set for [X]	1	

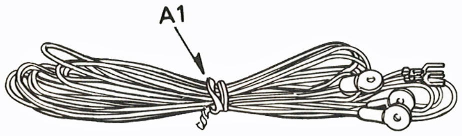
PACKING PARTS

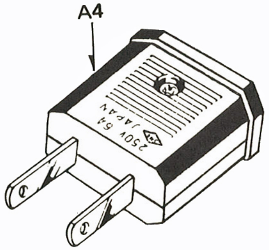
Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
P1	SPP487	Soft Cover	1	
P2	SPP465	Polyethylene Bag	1	
P3	SPS381-1	Pad, Left Side	1	
P4	SPS383-1	Pad, Right Side	1	
P5 [XE]	SPS497	Pad, Corner, Set for [XE]	4	
P5 [X]	SPS529	Pad, Corner, Set for [X]	4	
P5 [XG, XGH, XSD, XSW]	SPS533	Pad, Corner, Set for [XG], [XGH], [XSD] & [XSW]	4	
P6 [X]	SPS477	Pad, Bottom, Set for [X]	1	

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
P6 [XG, XGH, XSD, XSW]	SPS531	Pad, Bottom, Set for [XG], [XGH] [XSD] & [XSW] (Except Set for [XE])	1		○
P7 [X]	SPN5171	Carton Box, Inner, Only Set for [X]	1		○
P8 [X]	SPG725	Carton Box, Outer, Set for [X]	1		○
P8 [XE]	SPG733	Carton Box, Set for [XE]	1		○
P8 [XG, XGH, XSD, XSW]	SPG729	Carton Box, Set for [XG], [XGH], [XSD] & [XSW]	1		○
P9 [XE]	SQF1327	Printed Matter, Only Set for [XE]	1		○
P9 [X, XG, XGH, XSD, XSW]	SQF1281	Printed Matter, Set for [X], [XG], [XGH], [XSD] & [XSW]	1		○

Notes: Set for [X] are European, Asia, Latin America, Oceania, Middle East and Africa.
Set for [XG] are European
Set for [XGH] is Holland.
Set for [XSD] are Denmark, Sweden, Norway and Finland.
Set for [XSW] is Swiss
Set for [XE] is England.

■ ACCESSORIES

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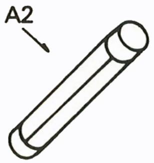
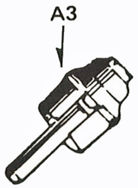
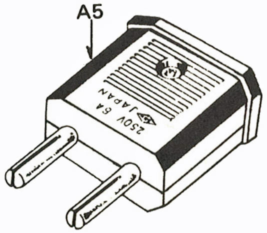
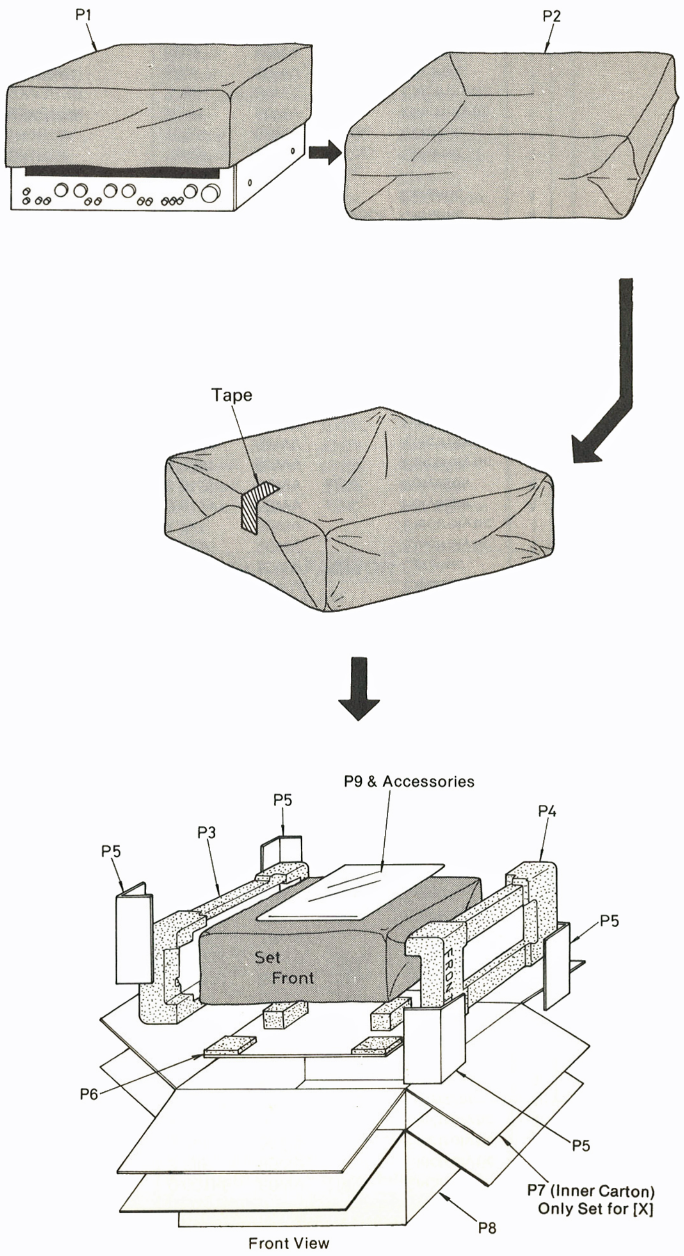





A5
250V 5A
JAPAN

A4 & A5 ..... Set for (X)

■ PACKINGS


P1
P2
Tape
P9 & Accessories
P5
P3
P5
P4
P5
Set
Front
FRONT
P6
P5
P7 (Inner Carton)
Only Set for [X]
P8
Front View